BODY BUILDER MANUAL

FOR

2016 Full Size C/K SUV

Electrical Body Builder Manual

Chevrolet Tahoe and Suburban,

GMC Yukon and Yukon XL,

Cadillac Escalade

Revision 1.0

www.gmupfitter.com

July 8, 2015

Note to User:
As part of our mission to provide an up-to-date website that includes detailed Body Builder Manuals, Technical Bulletins, and Best Practice Manuals, we are now using sectional excerpts directly from the General Motors Service Information publications for our Electrical Body Builder Manuals.

You will note that the section numbers are non-sequential as we have provided only those that are believed to be the most pertinent to the Upfitter community and best suited to their needs.*

This new usage of the Service Information provides the opportunity for us to remain consistent with the changes that take place throughout the model year and to provide you updated information in a more timely fashion.

**** If you would like to have access to all of the electrical Service Information, please apply for a subscription from ACDelco at http://acdelcotechconnect.com/html/tss_tech_esi.jsp***

General Information

General Information

Introduction

RPO Code List

RPO Table

RPO	Description
The production/process codes provide the description of the Regular Production Options (RPOs). The RPO list is printed on the Service Parts Identification Label.	
1LR	MODIFICATION-BRAKE SYSTEM, OPTIONAL LININGS
4AA	INTERIOR TRIM-JET BLACK
4B8	INTERIOR TRIM-COCOA / SHALE
4D7	INTERIOR TRIM-JET BLACK/DK ASH
4DP	INTERIOR TRIM-COCOA / DUNE
4ER	INTERIOR TRIM-JET BLACK / VECCHIO
4EY	INTERIOR TRIM-COCOA / PILLION BROWN SAUVAGE
4EZ	INTERIOR TRIM-COCOA / DARK ATMOSPHERE
4FP	INTERIOR TRIM-PLATINUM JET BLACK
4FQ	INTERIOR TRIM-CHOOCCACHINO
5AZ	ACCESSORY-SAFETY KIT - UNIVERSAL
5JL	ACCESSORY-BRAKE UPGRADE PKG 1 - COMPLETE
5W4	SALES PACKAGE-SPECIAL SERVICE, MUNICIPAL
5Y3	ACCESSORY-TOW BALL - TRAILER HITCH
9C1	SALES PACKAGE-POLICE VEHICLE
9G3	SALES PACKAGE-"OFF ROAD"
A31	WINDOW-POWER OPERATED, ALL DOORS (DO NOT USE ON NEW/MAJOR PROGRAMS)
A45	MEMORY-SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION
A4M	SALES PROCESSING OPT-#3
A95	SEAT-FRT BKT, HIGH BACK, DRIVER & PASS RECL

ACO	IDENTIFICATION-ACCESSORY CATALOG OFFERING
AG1	ADJUSTER FRT ST-POWER, MULTI-DIRECTIONAL, DRIVER
AG2	ADJUSTER PASS ST-POWER, MULTI-DIRECTIONAL
AKJ	WINDSHIELD STYLE-SHADE BAND
AKK	WINDSHIELD STYLE-ACOUSTIC PVB
AKO	WINDOW TYPE-PRIVACY
AKP	WINDOW TYPE-SOLAR ABSORBING
AKX	WINDSHIELD TYPE-SOLAR ABSORBING
AL0	SENSOR INDICATOR-INFLATABLE RESTRAINT, FRT PASS/CHILD PRESENCE DETECTOR
AMF	LOCK CONTROL-ADDITIONAL, PROGRAMMABLE, REMOTE ENTRY, MULTIPLE UNITS
AN3	SEAT-FRT, INDIVIDUAL (NON BKT)
AP9	NET-CONVENIENCE
AQQ	LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE (MY 09 AND FUTURE)
ARL	PLANT CODE-ARLINGTON, TX, USA
ARN	SEAT THIRD ROW-60/40 BENCH, MAN FOLD
AS8	SEAT THIRD ROW-60/40 BENCH, POWER FOLD
AT6	SEAT RR-BENCH, 60/40 MANUAL CONFIGURABLE
ATD	SEAT THIRD ROW-NONE
ATH	LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS
ATN	SEAT RR-BUCKET, POWER CONFIGURABLE
ATT	SEAT RR-BENCH, 60/40 POWER CONFIGURABLE
ATV	SEAT RR-BUCKET, MANUAL CONFIGURABLE
AU3	LOCK CONTROL-SIDE DR, ELEC
AX4	RESTRAINT CONVERSION-SEAT, MAN, EUROPEAN
AX7	RESTRAINT PROVISIONS-AUTOMATIC BELTS, PRE-CRASH, PRE-TIGHTENING

AXP	VEHICLE TYPE-MULTI-PURPOSE PASSENGER VEHICLE
AXX	VEHICLE TYPE-VEHICLE TYPE - NOT REQUIRED DO NOT USE
AY0	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER & PASS FRT, SEAT SIDE, ROOF SIDE
AYE	RESTRAINT-HEAD, RR SEAT, ANILINE LEATHER (WITH DVD) (DO NOT USE AFTER M.Y. 2016)
AYQ	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER & PASS FRT, FRT SEAT SIDE, FRT INBOARD SEAT SIDE, ROOF SIDE
AZ3	SEAT-FRT SPLIT, DRIVER, PASS, FULL FEATURE CENTER
B30	COVERING FLOOR-CARPET
B3V	TEST-EXTENDED WATER
B58	COVERING-FLOOR MAT, FRT & RR, CARPETED INSERT
B5N	COVERING-FLOOR MAT, FRT & RR, RUBBER
B85	MOLDING B/S-EXTERIOR, BRIGHT
B86	MOLDING B/S-BODY COLOR
BAG	PARTS PKG-EXPORT
BG9	COVERING FLOOR-RUBBER
BPH	APPEARANCE PACKAGE-CHEVROLET "OFF ROAD"
BRS	STEPS, RUNNINGBOARD-SIDE, RETRACTABLE, POWER
BTM	SWITCH-ENGINE START, KEYLESS
BTV	REMOTE START-ENGINE
BVE	STEPS, RUNNINGBOARD-SIDE
C25	WIPER SYS RR WINDOW-INTERMITTENT
C49	DEFOGGER-RR WINDOW, ELECTRIC
C9I	SWITCH-ROLL OVER SENSING
CE1	WIPER SYS WINDSHIELD-PULSE, MOISTURE SENSITIVE
CF5	ROOF-SUN, GLASS, SLIDING, ELEC
CJ4	HVAC SYSTEM-AIR CONDITIONING, FRT & RR ELECTRONIC CONTROLS
CK4	COUNTRY-GREECE

CL5	COUNTRY-PERU
CL6	COUNTRY-BOLIVIA
CT1	COUNTRY-BELGIUM
CT2	COUNTRY-AUSTRIA
CT3	COUNTRY-GERMANY
CT5	COUNTRY-NETHERLANDS
CT6	COUNTRY-ITALY
CT7	COUNTRY-DENMARK
CT9	COUNTRY-SPAIN
CU1	COUNTRY-NORWAY
CU2	COUNTRY-FINLAND
CU3	COUNTRY-FRANCE
CU4	COUNTRY-SWEDEN
CU5	COUNTRY-SWITZERLAND
CU7	COUNTRY-KUWAIT
CU8	COUNTRY-SAUDI ARABIA
CV3	COUNTRY-MEXICO
CV5	COUNTRY-JAPAN
CV6	COUNTRY-CHILE
CW2	COUNTRY-GULF AREAS (BAHRAIN, KUWAIT, OMAN, QATAR, SAUDI ARABIA, UAE)
CW9	COUNTRY-MISCELLANEOUS
CX2	COUNTRY-COLOMBIA
CX3	COUNTRY-ECUADOR
CX9	COUNTRY-LEBANON
CY2	COUNTRY-JORDAN
CZ3	COUNTRY-RUSSIA
D07	CONSOLE-FRT COMPT, FLOOR, CUSTOM
D2D	COUNTRY-PHILIPPINES
D2Y	COUNTRY-ANTIGUA
D3B	COUNTRY-BERMUDA
D3D	COUNTRY-REPUBLIC OF TRINIDAD AND TOBAGO

D3I	COUNTRY-BARBADOS
D3J	COUNTRY-CAYMAN ISLANDS
D3K	COUNTRY-DOMINICAN REPUBLIC
D3L	COUNTRY-EL SALVADOR
D3M	COUNTRY-GUATEMALA
D3P	COUNTRY-HAITI
D3Q	COUNTRY-HONDURAS
D3U	COUNTRY-ST MAARTEN
D4G	COUNTRY-BAHAMAS
D4N	COUNTRY-COSTA RICA
D5D	COUNTRY-NICARAGUA
DCK	CONSOLE-FRT COMPT, FLOOR, CUSTOM, W/COOLER
DD8	MIRROR I/S R/V-LT SENSITIVE
DL3	MIRROR O/S-LH & RH, REMOTE CONTROL, ELECTRIC, HEATED, POWER FOLDING, TURN SIG IND, LT SENSITIVE, COLOR
DL8	MIRROR O/S-LH & RH, REMOTE CONTROL, ELECTRIC, HEATED
DNS	EQUIPMENT-SUPPLIER INSTALLED
DNU	EQUIPMENT-ADDITIONAL VIDEO SCREEN
DR4	MIRROR O/S-LH & RH, REMOTE CONTROL, ELECTRIC, HEATED, LT SENSITIVE, POWER FOLDING, COLOR
DT4	ASHTRAY-CIGARETTE LIGHTER
E01	STEPS-ASSIST
EF5	COUNTRY-PANAMA
EF7	COUNTRY-UNITED STATES OF AMERICA (USA)
EXP	EXPORT-
FE9	CERTIFICATION-EMISSION, FEDERAL
FHO	VEHICLE FUEL-GASOLINE E10
FHS	VEHICLE FUEL-GASOLINE E85
G1C	PRIMARY COLOR-EXTERIOR, OVERCAST MET(402Y)
G1E	PRIMARY COLOR-EXTERIOR, LIMITED ADDICTION RED TINT (405Y)

G1W	PRIMARY COLOR-EXTERIOR, ABALONE WHITE TRICOAT(140X)
G7U	PRIMARY COLOR-EXTERIOR, PLUM BERRY MET (143X)
G80	AXLE POSITRACTION-LIMITED SLIP
GAN	PRIMARY COLOR-EXTERIOR, SWITCHBLADE SILVER MET (G) 636R
GAZ	PRIMARY COLOR-EXTERIOR, SUMMIT WHITE (G) 8624
GBA	PRIMARY COLOR-EXTERIOR, BLACK (G) 8555
GT5	AXLE REAR-4.10 RATIO
GU4	AXLE REAR-3.08 RATIO
GU5	AXLE REAR-3.23 RATIO
GU6	AXLE REAR-3.42 RATIO
GWT	PRIMARY COLOR-EXTERIOR, CHAMPAGNE SILVER MET (102V)
GWX	PRIMARY COLOR-EXTERIOR, SUBTERRANEAN MET (105V)
GXG	PRIMARY COLOR-EXTERIOR, IRIDIUM MET (121V)
H0K	INTERIOR TRIM CONFIG-LEATHER, LEVEL 3, COCOA / DUNE
H0U	INTERIOR TRIM CONFIG-CLOTH, LEVEL 2, JET BLACK
H2G	INTERIOR TRIM CONFIG-VINYL, LEVEL 1, JET BLACK
H2T	INTERIOR TRIM CONFIG-CLOTH, LEVEL 2, COCOA / DUNE
H2U	INTERIOR TRIM CONFIG-LEATHER, LEVEL 3, JET BLACK
H2V	INTERIOR TRIM CONFIG-LEATHER, LEVEL 3, JET BLACK / DK ASH
H2X	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, JET BLACK
H2Y	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, COCOA / DUNE
H4W	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, COCOA / DARK ATMOSPHERE
H4X	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, COCOA / PILLION BROWN SAUVAGE

H4Y	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, COCOA / SHALE
HD7	HANDLE-O/S, DR, ILLUMINATED
HEW	INTERIOR TRIM CONFIG-CLOTH, LEVEL 3, JET BLACK
HEY	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, JET BLACK / VECCHIO
HHZ	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, CHOCCACHINO
HJU	INTERIOR TRIM CONFIG-LEATHER, LEVEL 4, PLATINUM JET BLACK
HJV	INTERIOR TRIM CONFIG-CLOTH, LEVEL 3, COCOA / DUNE
I16	ENGINEERING YEAR-2016
IO3	RADIO-INFOTAINMENT SYSTEM - BASE HMI
IO5	RADIO-INFOTAINMENT SYSTEM - UPLEVEL HMI, ENHANCED CONNECTIVITY
IO6	RADIO-INFOTAINMENT SYSTEM - UPLEVEL HMI, ENHANCED CONNECTIVITY, EMBEDDED NAVIGATION
J71	BRAKE PARKING-POWER OPERATED
J95	BRAKE-HYD POWER, SINGLE REAR WHEEL, 4 WHL DISC
JB1	BRAKE-VAC POWER, 17" DISC/DISC, W/ESS, 7700 LBS
JD9	BRAKE-VAC POWER, 17" DISC/DISC, W/VSES, 7700 LBS
JF4	PEDALS-ADJUSTABLE, POWER
JHD	CONTROL-HILL DESCENT, GEAR HOLD
JL1	CONTROL-INTEGRATED TRAILER BRAKE
K05	HEATER ENG-BLOCK
K34	CRUISE CONTROL-AUTOMATIC, ELECTRONIC
K47	AIR CLEANER-HIGH CAPACITY
K4B	BATTERY-LN3, FLA, 12V, 70AH, 730 SAE CCA, AUX
K4C	CHARGER-INDUCTIVE PORTABLE WIRELESS DEVICE
K59	CRUISE CONTROL-AUTOMATIC, ADAPTIVE
KA6	HEATER SEAT-REAR

KB6	HEATER-SEAT, COOLING, FRT
KC4	COOLING SYSTEM-ENG OIL
KG4	GENERATOR-150 AMP
KI4	RECEPTACLE-ELECTRICAL, ACCESSORY 110 VOLT
KI5	RECEPTACLE-ELECTRICAL, ACCESSORY 230 VOLT
KNP	COOLING SYSTEM-TRANS, HD
KRV	REFRIGERANT-LOW GWP
KSG	CRUISE CONTROL-AUTOMATIC, ADAPTIVE, WITH STOP/GO
KW5	GENERATOR-220 AMP
KW7	GENERATOR-170 AMP
L83	ENGINE-GAS, 8 CYL, 5.3L, SIDI VVT, AFM, E85 MAX, ALUM, GM
L86	ENGINE-GAS, 8 CYL, 6.2L, SIDI VVT, AFM, E85 MAX, ALUM, GM
L96	ENGINE-GAS, 8 CYL, 6.0L, SFI, E85 MAX, IRON, GM
M5U	TRANSMISSION-AUTO 8 SPD, 8L90
MAA	MARKETING AREA-AFRICA
MAF	MARKETING AREA-SOUTHEAST ASIA
MAH	MARKETING AREA-US, PUERTO RICO/USVI
MAM	MARKETING AREA-MIDDLE EAST
MAY	MARKETING AREA-ANDEAN (SOUTH AMERICA 2)
MBC	MARKETING AREA-CANADA
MBD	MARKETING AREA-CENTRAL AMERICA/CARIBBEAN
MBM	MARKETING AREA-EUROPE GROUP
MBR	MARKETING AREA-RUSSIA GROUP
MCX	MARKETING AREA-MEXICO
MYC	TRANSMISSION-AUTO 6 SPD, HMD, 6L80
MYD	TRANSMISSION-AUTO 6 SPD, HMD, 6L90
N08	LOCK CONTROL-FUEL FILLER DR, REM CONT
N12	EXHAUST SYSTEM-REAR EXIT

N30	STEERING WHEEL-DELUXE
N33	STEERING COLUMN-TILT TYPE
N37	STEERING COLUMN-TILT, TELESCOPING
N38	STEERING COLUMN-TILT, TELESCOPING, POWER
NE1	CERTIFICATION-EMISSION, GEOGRAPHICALLY RESTRICTED REGISTRATION FOR VEHICLES UP TO 14,000 LBS GVW (USE 2003 MDL YR
NE4	EMISSION SYSTEM-EEC 14
NE9	EMISSION SYSTEM-EEC 09
NHT	PERFORMANCE PACKAGE-ENHANCED TOWING
NK5	STEERING WHEEL-STANDARD
NKC	NOISE CONTROL-SYSTEM, ACTIVE NOISE CANCELLATION
NP0	TRANSFER CASE-ACTIVE, SINGLE SPEED,SWITCH ACTIVATED,ALUM
NP5	STEERING WHEEL-LEATHER WRAPPED
NQH	TRANSFER CASE-ACTIVE, TWO SPEED, SWITCH ACTIVATED, ALUM
NT7	EMISSION SYSTEM-FEDERAL, TIER 2
NTB	EMISSION SYSTEM-FEDERAL, TIER 3
NU5	EMISSION SYSTEM-CALIFORNIA, BIN 4
NUF	EMISSION SYSTEM-CALIFORNIA, ULEV125
NUM	EMISSION SYSTEM-CALIFORNIA, LEV3 MDV 10-14K GVW
NZ4	WHEEL SPARE-17 X 7.5, J, STEEL, DESIGN 2
NZD	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 6
NZG	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 7
NZT	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 18
NZZ	SALES PACKAGE-SKID PLATE, "OFF ROAD" SPORT
PB4	LOCK CONTROL-WHEEL
PYQ	WHEEL-17 X 7.5, J, ALUMINUM, DESIGN 7
PZX	WHEEL-18 X 8.5, J, ALUMINUM, DESIGN 2
Q5U	WHEEL-17 X 8.0, J, ALUMINUM, DESIGN 2

Q7L	WHEEL-22 X 9.0, J, ALUMINUM, DESIGN 2
Q7M	WHEEL-22 X 9.0, J, ALUMINUM, DESIGN 3
QAR	TIRE ALL-P265/60R17 SL 108V BW AL3
QBL	TIRE ALL-P265/70R17 SL 113H BW OOR
QHX	TIRE ALL-P285/50R20 SL 111H BW AL3
QSS	TIRE ALL-P275/55R20 SL 111S BW AL2
QST	TIRE ALL-P285/45R22 SL 110H BW AL3
QXO	TIRE ALL-P265/65R18 SL 112H BW AL3
QXT	TIRE ALL-LT265/70R17 E 121/118 Q BW AT
QXU	TIRE ALL-LT265/70R17 E 121/118 Q BW AT
RAP	WHEEL-17 X 8.0, J, STEEL, DESIGN 1
RBR	WHEEL-22 X 9.0, J, STEEL, DESIGN 1
RBX	TIRE ALL-P265/65R18 SL 112T BW AT
RBZ	TIRE ALL-P255/70R17 SL 110S BW ALS
RC3	TIRE ALL-P265/70R17 SL 113S BW AT
RC4	TIRE SPARE-P265/70R17 SL 113S BW
RC7	TIRE ALL-P275/55R20 SL 111S BW AT
RCV	WHEEL-18 X 8.5, J, ALUMINUM, DESIGN 4
RCW	WHEEL-18 X 8.5, J, ALUMINUM, DESIGN 5
RD2	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 2
RD4	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 4
RD5	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 5
RD6	WHEEL-17 X 8.0, J, STEEL, DESIGN 2
RHO	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 19
RI8	TIRE ALL-265/65R18 SL 114S BW MT
RIA	ACCESSORY-FLOOR LINER - CONTOURED
RIB	ACCESSORY-FLOOR LINER - CONTOURED - 3RD ROW
RKX	TIRE ALL-P265/65R18 SL 112T BW ALS
RM7	WHEEL SPARE-17 X 8.0, J, STEEL, DESIGN 1
RTL	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 1
RUF	WHEEL SPARE-17 X 7.5, J, STEEL, DESIGN 1

RVA	WHEEL-22 X 9.0, J, ALUMINUM, DESIGN 1
RVG	ACCESSORY-ADAPTER - TRAILER HARNESS
RVQ	ACCESSORY-ASSIST STEPS - TUBULAR - OVAL - BLACK
RVX	ACCESSORY-BALL MOUNT - TRAILER HITCH
RWI	ACCESSORY-BODY SIDE MOLDINGS - CHROME
RWK	ACCESSORY-BODY SIDE MOLDINGS - PAINTED
RWS	ACCESSORY-FLOOR MATS - CARPET
RWU	ACCESSORY-CARGO AREA ORGANIZER - COLLAPSIBLE
RX1	ACCESSORY-WHEEL, WITH INSERTS - DESIGN 1
RXH	ACCESSORY-CENTER CAP - WHEEL - DESIGN 1
RXJ	ACCESSORY-CENTER CAP - WHEEL - DESIGN 2
RXN	ACCESSORY-WHEEL, WITH INSERTS - DESIGN 2
RYK	ACCESSORY-REAR SEAT INFOTAINMENT SYSTEM 1
RYT	ACCESSORY-FIRST AID KIT
RZ9	ACCESSORY-GRILLES/GRILLE INSERT - ALTERNATE DESIGN 1
RZO	ACCESSORY-WHEEL - 20" - ALUMINUM - DESIGN 9
S0M	ACCESSORY-ILLUMINATED DOOR SILLS
S0P	ACCESSORY-INSERT - FLOOR CONSOLE
S1V	ACCESSORY-HEADPHONES - RSE
S2B	WHEEL SPARE-17 X 7.0, J, ALUMINUM, DESIGN 1
S44	ACCESSORY-LOCKING PIN - TRAILER HITCH
S47	ACCESSORY-LUG NUTS
S6D	ACCESSORY-PORTABLE REFRIGERATOR
S6N	ACCESSORY-RECEIVER COVER - TRAILER HITCH
S6Q	ACCESSORY-ROADSIDE ASSISTANCE PACKAGE

SAF	LOCK-SPARE TIRE, HOIST SHAFT
SAM	ACCESSORY-SKID PLATES
SAO	ACCESSORY-SMOKERS PACKAGE
SD5	ACCESSORY-TIRE PRESSURE MONITOR
SDA	ACCESSORY-TOW HOOKS
SDI	ACCESSORY-TRIANGLE - REFLECTIVE
SES	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 1
SEU	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 2
SEV	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 3
SEW	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 4
SEY	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 5
SEZ	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 6
SF0	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 7
SF1	ACCESSORY-WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 8
SFE	ACCESSORY-WHEEL LOCKS
SFJ	ACCESSORY-WINDOW SHADES - REFLECTIVE
SFV	ACCESSORY-WIRELESS NETWORK INTERFACE MODULE
SFZ	ACCESSORY-EMBLEM - EXTERIOR - DESIGN 1
SGF	WHEEL-22 X 9.0, J, ALUMINUM, DESIGN 4
SGG	WHEEL-22 X 9.0, J, ALUMINUM, DESIGN 5
SJA	ACCESSORY-GRILLE / GRILLE INSERTS - ALTERNATE FINISH 2
SLT	EQUIPMENT-LT' SALES PKG
T3U	LAMP FRT FOG-FRT FOG
T4F	HEADLAMPS-HIGH INTENSITY DISCHARGE
T79	LAMP-FOG, RR
T89	LAMP-TAIL & STOP, EXPORT
TB4	BODY EQUIPMENT-LIFT GATE (MANUAL)

TB5	BODY EQUIPMENT-LIFT GATE (POWER)
TB8	CONTROL, HEADLAMPS-RH RULE OF THE ROAD
TBD	COMMUNICATION SYSTEM-VEHICLE HEALTH MANAGEMENT
TC2	BODY EQUIPMENT-LIFT GATE, POWER, HANDS FREE
TG5	PLAYER-COMPACT DISC AND MP3
TGG	LANGUAGE CONTROL-ENGLISH, ARABIC, FRENCH
TQ5	HEADLAMP HIGH BEAM-AUTO CONTROL
TR2	LAMP-TURN SIGNAL, ENLARGED
TRW	PROVISIONS-LAMP, ROOF MOUNTED
TUF	ORNAMENTATION-EMBLEM, "TEXAS EDITION"
U19	SPEEDOMETER-INST, KILO & MILES, KILO ODOMETER
U2J	DIGITAL AUDIO SYSTEM-S-BAND - NONE
U2K	DIGITAL AUDIO SYSTEM-S-BAND
U2L	RECEPTION-HD
U42	ENTERTAINMENT PKG-RR SEAT, SINGLE DISP, REM CONTROL, RR CONSUMER PORT, 2-WIRELESS 2-CHANNEL HEADPHONES, OPTICAL DRIVE
U77	ANTENNA-RR WINDOW, RADIO
UD5	PARK ASSIST-FRONT AND REAR
UD7	PARK ASSIST-REAR
UDC	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (ONE COLOR GRAPHIC)
UDD	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (MULTI COLOR STANDARD GRAPHIC)
UDV	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED, FULL CLUSTER (MULTI COLOR GRAPHIC)
UE0	COMMUNICATION SYSTEM-VEHICLE - NONE
UE1	COMMUNICATION SYSTEM-VEHICLE, ONSTAR
UEU	SENSOR INDICATOR-FORWARD COLLISION ALERT
UFG	SENSOR INDICATOR-REAR CROSS TRAFFIC ALERT

UFL	LANE ACTIVE SAFETY-DEPARTURE WARNING
UG1	OPENER-GARAGE DOOR, UNIVERSAL
UGN	COLL IMMINENT BRK-ALL SPEED, VEH FWD MOVEMENT, BRAKE PREFILL, INTEGRATED BRAKE ASSIST
UHN	WHEEL-18 X 8.5, J, ALUMINUM, DESIGN 3
UHS	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (MULTI COLOR ENHANCED GRAPHIC)
UHX	LANE ACTIVE SAFETY-KEEP ASSIST
UHY	COLL IMMINENT BRK-LOW SPEED, VEH FWD MOVEMENT, BRAKE PREFILL, INTEGRATED BRAKE ASSIST
UJM	TIRE PRESS INDICATOR-MANUAL LEARN
UK3	CONTROL-STEERING WHEEL, ACCESSORY
UKC	SIDE ACTIVE SAFETY-OBSTACLE DETECTION ENHANCED
UL2	FREQUENCIES-EUROPEAN
UL8	FREQUENCIES-SAUDI ARABIAN
ULT	APPEARANCE PACKAGE-CADILLAC ESCALADE, PLATINUM
UMN	SPEEDOMETER-INST, MILES & KILO, MILES ODOMETER
UPF	WIRELESS INTERFACE-SHORT RANGE, VOICE REC
UQ3	SPEAKER SYSTEM-ENHANCED AUDIO
UQA	SPEAKER SYSTEM-PREMIUM AUDIO BRANDED WITH AMPLIFIER
UQG	SPEAKER SYSTEM-ENHANCED AUDIO WITH AMPLIFIER
UQH	SPEAKER SYSTEM-PREMIUM AUDIO BRANDED WITH SURROUND AMPLIFIER, AUDIOPHILE
UQS	SPEAKER SYSTEM-PREMIUM AUDIO BRANDED WITH SURROUND AMPLIFIER
UTJ	THEFT DETERENT-ELECTRICAL, UNAUTHORIZED ENTRY
UTR	ALARM, HORN-CONTENT THEFT DETERENT, SELF POWERED
UTT	THEFT DETERENT-BODY SECURITY CONTENT
UTU	SENSOR, VEHICLE-INCLINATION

UTV	SENSOR, VEHICLE-INTERIOR MOVEMENT
UV6	DISPLAY-HEAD UP
UVC	VISION-REAR VIEW, MONO, ANALOG
UVD	STEERING WHEEL HEAT-MANUAL
UVH	VISION-360 VIEW, MONO, ANALOG
UVZ	SENSOR-COLLISION AVOIDANCE & MITIGATION, VEHICLE REVERSE MOVEMENT
V54	LUGGAGE CARRIER-ROOF, PAINTED
V76	HOOK-TOW
VAS	ACCESSORY-GRILLE / GRILLE INSERTS - ALTERNATE FINISH - BODY COLOR
VAT	ACCESSORY-GRILLE / GRILLE INSERTS - ALTERNATE FINISH - CHROME
VAV	ACCESSORY-FLOOR MATS - ALL WEATHER
VBX	LANGUAGE LABEL-ARABIC
VC5	LABEL-SHIPPING, EXCEPT US, US POSSESSIONS, OR JAPAN (DO NOT USE MY18 AND BEYOND)
VFF	VIDEO FORMAT-REGION 1, NTSC
VFJ	VIDEO FORMAT-REGION 2, PAL
VFK	VIDEO FORMAT-REGION 3, NTSC
VFM	VIDEO FORMAT-REGION 4, NTSC
VFP	VIDEO FORMAT-REGION 5, PAL
VGC	PROTECTOR-FILM, PAINT ETCH PREVENTIVE
VH9	ENVELOPE-OWNER INFO MAN
VK3	LICENSE PLATE FRONT-FRT MOUNTING PKG
VKU	ACCESSORY-MIRROR CAPS - CHROME
VKW	ACCESSORY-ORGANIZER - FRONT CONSOLE
VKY	ACCESSORY-DOOR HANDLES - ALTERNATE FINISH - CHROME
VL4	LICENSE PLATE FRONT-FRT MOUNTING PKG, EEC
VL5	LICENSE PLATE-RR MOUNTING PKG, EXPORT
VLG	ACCESSORY-CLOSEOUT - REAR FASCIA
VLI	ACCESSORY-MAT - TRUNK / CARGO AREA

VPH	VEHICLE PREPARATION-OVERSEAS DELIVERY
VPV	HANDLING CHARGE-ARLINGTON ASM TO KERR INDUSTRIES, ARLINGTON, TX AND RETURN TO ARLINGTON ASM
VQK	ACCESSORY-SPLASH GUARDS - CUSTOM MOLDED
VQQ	ACCESSORY-CROSS RAILS - ROOF RACK - INTEGRATED - BLACK
VQY	ACCESSORY-TOW HOOKS - CHROME
VQZ	ACCESSORY-EXHAUST TIP - DESIGN 1
VRS	ACCESSORY-CARGO SECURITY SHADE
VRV	ACCESSORY-SPLASH GUARDS - CUSTOM MOLDED - PAINTED
VT7	OWNERS MANUAL-ENGLISH LANGUAGE
VV4	COMMUNICATION EQUIP-MOBILE INTERNET CONNECTIVITY
VVJ	CALIBRATION-SPEEDOMETER (180 KPH/112 MPH)
VXH	ACCESSORY-ASSIST STEPS - TUBULAR - CHROME - OVAL
VZ3	LABEL-MERCURY DISPOSAL NOTIFICATION
W2D	ACCESSORY-CARGO NET
WH9	ACCESSORY-CARGO AREA DIVIDER - VERTICAL
WJI	SALES PACKAGE-MARY KAY
WMG	VIN MODEL YEAR-2016
WV9	MERCHANDISED PKG-VALUE LEADER
X88	MARKET BRAND-CHEVROLET
XAA	ACCESSORY-TIRE ALL-P275/55R20 SL 111S BW AL2 VAR 1
XAB	ACCESSORY-TIRE ALL-215/45ZR18 XL 93Y BW AL3 VAR 1
XAV	ACCESSORY-TIRE ALL - P285/45R22 SL 110H BW AL3 -VAR 1
XL7	FREQUENCIES RATING-315 MHZ, LONG DISTANCE
XL8	FREQUENCIES RATING-433 MHZ
Y65	SALES PACKAGE-ESS 1

Y66	SALES PACKAGE-ESS 2
Y86	SALES PACKAGE-ESS 1B
Y91	MERCHANDISED PKG-LUXURY EDITION
YF5	CERTIFICATION-EMISSION, CALIFORNIA
YM8	IDENTIFICATION-LIMITED PERSONALIZATION OPTION (LPO)
Z49	COUNTRY-CANADA
Z56	CHASSIS PACKAGE-POLICE CONVERSION
Z5X	MIRROR PROVISIONS-ARABIC LANGUAGE
Z71	CHASSIS PACKAGE-"OFF ROAD"
Z75	MARKET BRAND-CADILLAC
Z82	TRAILER PROVISIONS-SPECIAL EQUIPMENT, H.D.
Z85	CHASSIS PACKAGE-INCREASED CAPACITY
Z88	MARKET BRAND-GMC
Z95	CHASSIS PACKAGE-MAGNERIDE
ZAK	TIRE SPARE-P265/60R17 SL 108V BW AL3
ZBL	TIRE SPARE-P265/70R17 SL 113 H BW OOR
ZBZ	TIRE SPARE-P255/70R17 SL 110H BW ALS
ZW7	CHASSIS PACKAGE-PREMIUM SMOOTH RIDE
ZXT	TIRE SPARE-LT265/70R17/E BW TL
ZXU	TIRE SPARE-LT265/70R17 E 121/118 S BW AT
ZY1	COLOR COMBINATION-SOLID

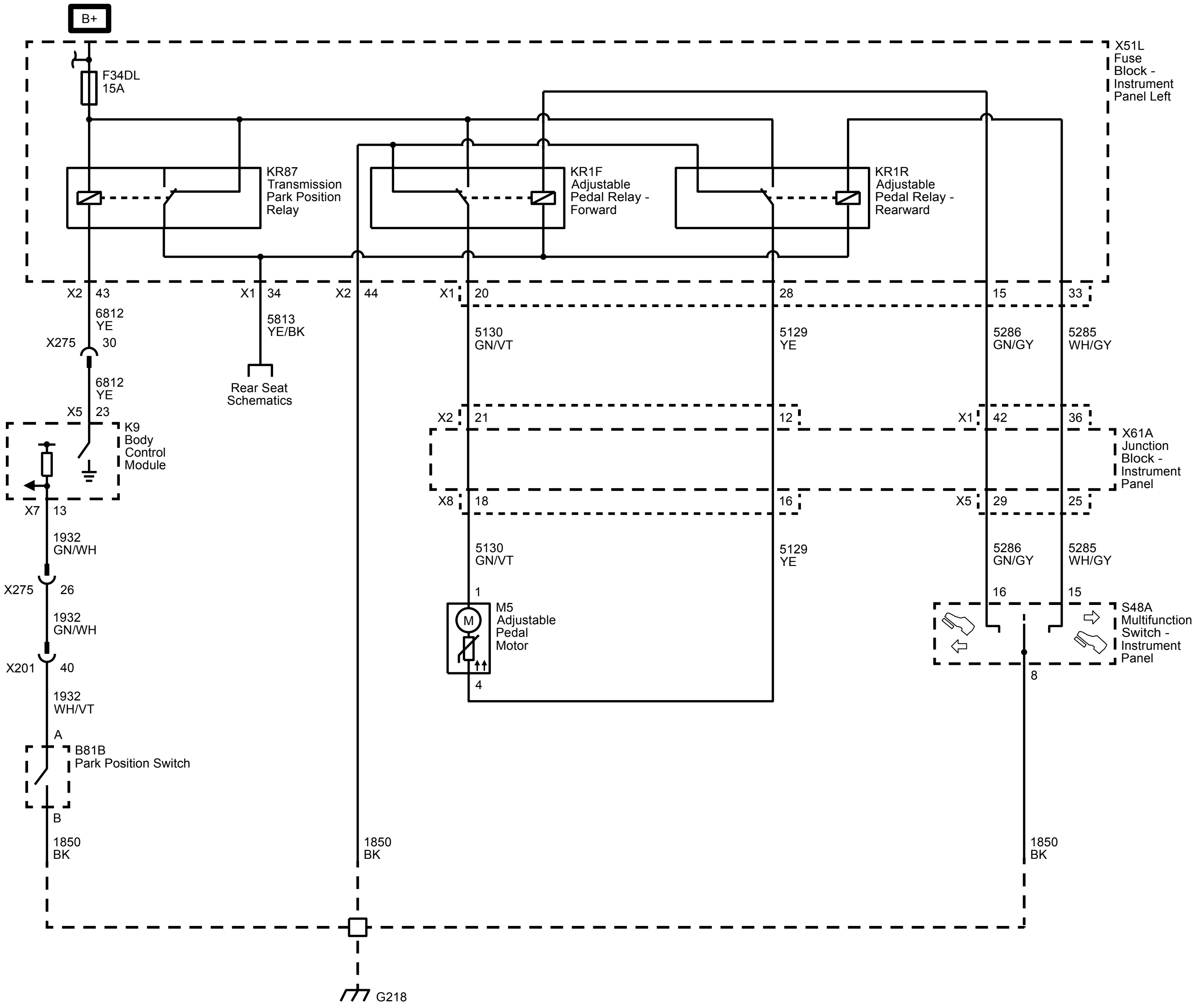
Body Systems

Adjustable Pedals

Schematic and Routing Diagrams

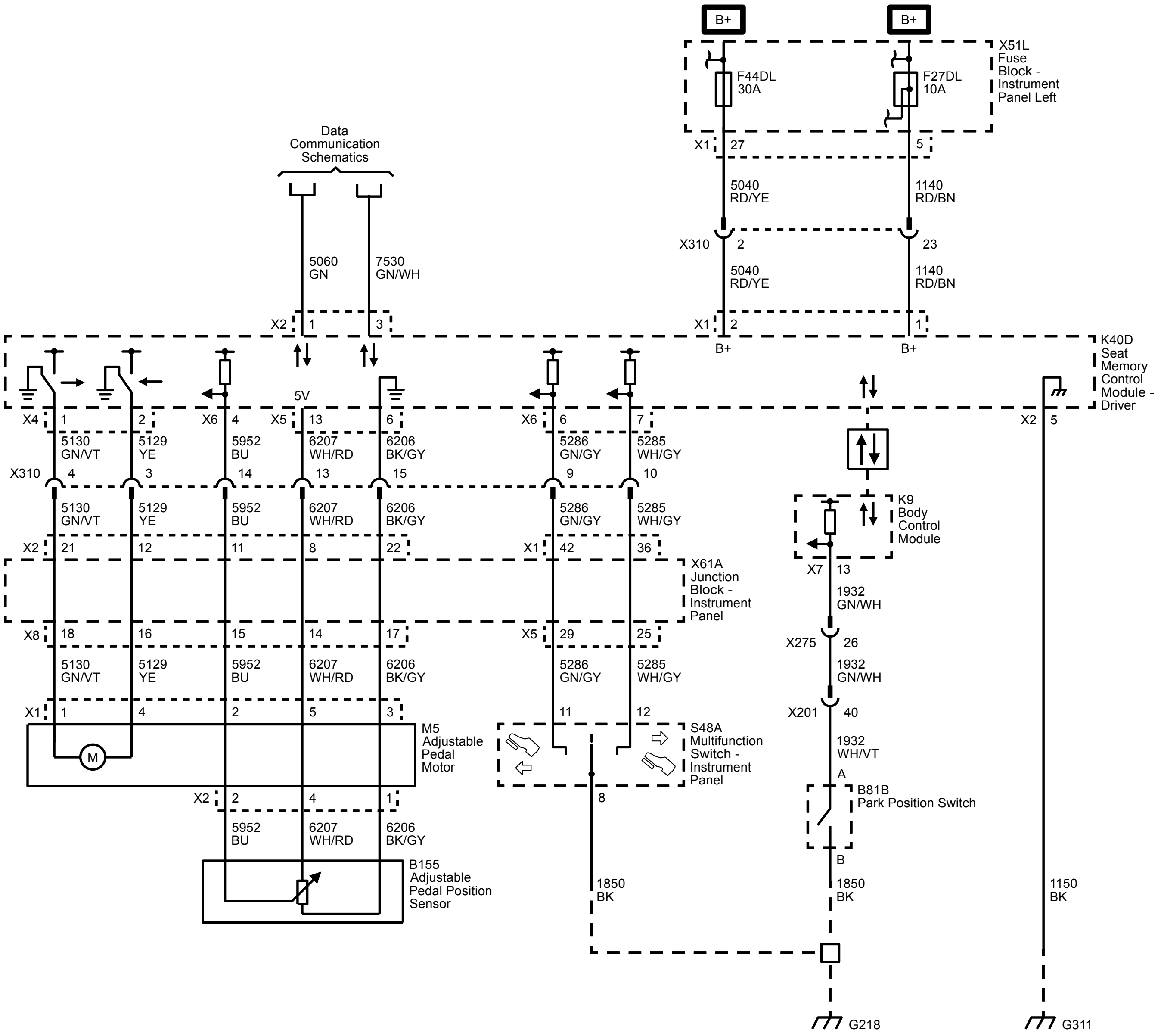
Adjustable Pedal Schematics

Adjustable Pedals (JF4 without A45)

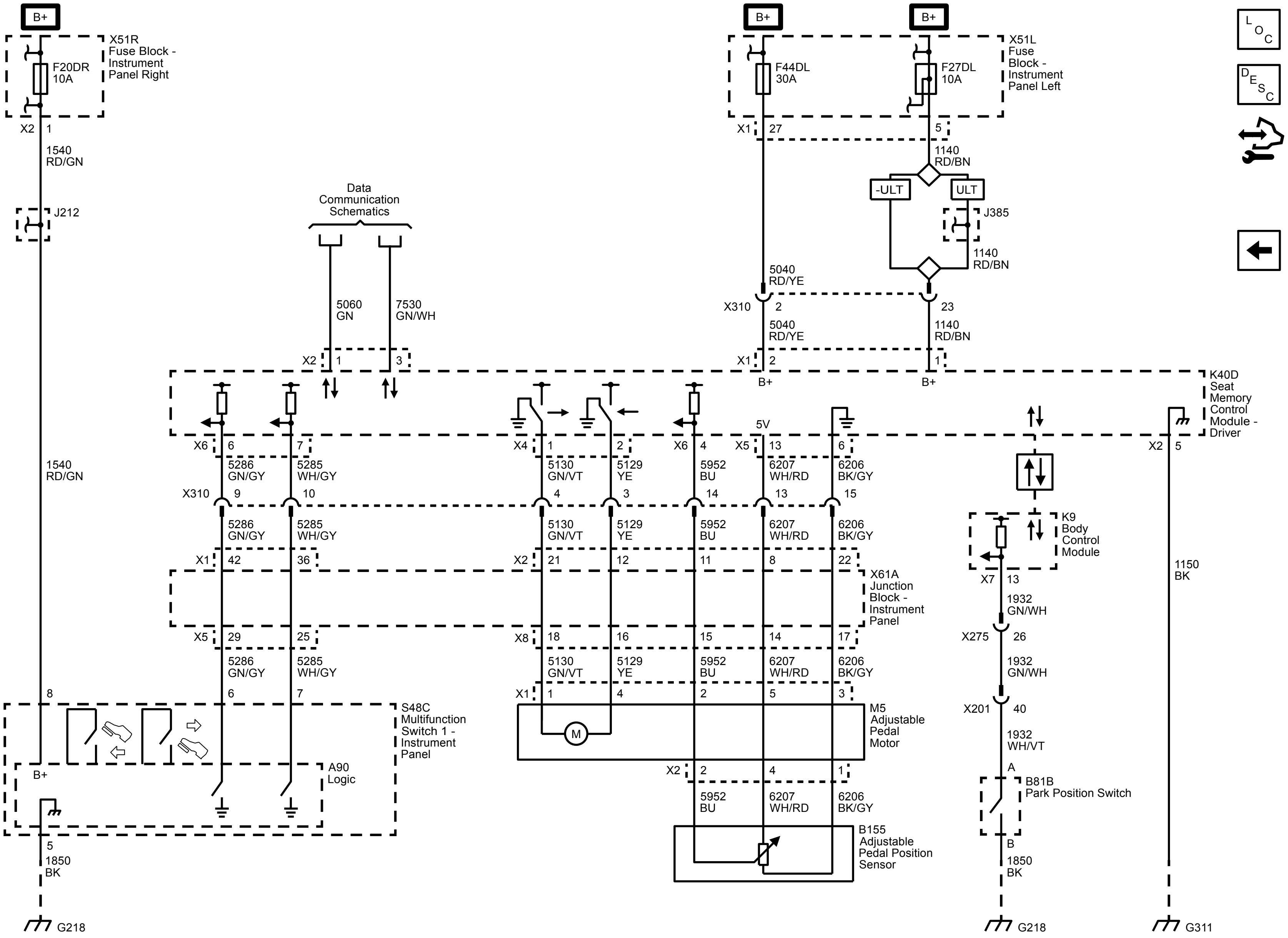


B+
F34DL
15A
X51L
Fuse
Block -
Instrument
Panel Left
KR87
Transmission
Park Position
Relay
KR1F
Adjustable
Pedal Relay -
Forward
KR1R
Adjustable
Pedal Relay -
Rearward
X2
43
X1
34
X2
44
X1
20
28
15
33
6812
YE
X275
30
6812
YE
5813
YE/BK
Rear Seat
Schematics
5130
GN/VT
5129
YE
5286
GN/GY
5285
WH/GY
X5
23
K9
Body
Control
Module
X2
21
12
X1
42
36
X61A
Junction
Block -
Instrument
Panel
X8
18
16
X5
29
25
X7
13
1932
GN/WH
X275
26
1932
GN/WH
X201
40
1932
WH/VT
A
B81B
Park Position Switch
B
1850
BK
5130
GN/VT
5129
YE
5286
GN/GY
5285
WH/GY
1
M
M5
Adjustable
Pedal
Motor
4
16
15
S48A
Multifunction
Switch -
Instrument
Panel
8
1850
BK
1850
BK
G218

Adjustable Pedals (X88 or Z88 with JF4 and A45)


B+
B+
X51L Fuse Block - Instrument Panel Left
F44DL 30A
F27DL 10A
X1 27
5
5040 RD/YE
1140 RD/BN
X310 2
23
5040 RD/YE
1140 RD/BN
X1 2
1
B+
B+
Data Communication Schematics
5060 GN
7530 GN/WH
X2 1
3
5V
K40D Seat Memory Control Module - Driver
X4 1
2
X6 4
X5 13
6
X6 6
7
X2 5
5130 GN/VT
5129 YE
5952 BU
6207 WH/RD
6206 BK/GY
5286 GN/GY
5285 WH/GY
X310 4
3
14
13
15
9
10
5130 GN/VT
5129 YE
5952 BU
6207 WH/RD
6206 BK/GY
5286 GN/GY
5285 WH/GY
K9 Body Control Module
X7 13
1932 GN/WH
X275 26
1932 GN/WH
X201 40
1932 WH/VT
X2 21
12
11
8
22
X1 42
36
X61A Junction Block - Instrument Panel
X8 18
16
15
14
17
X5 29
25
5130 GN/VT
5129 YE
5952 BU
6207 WH/RD
6206 BK/GY
5286 GN/GY
5285 WH/GY
X1 1
4
2
5
3
11
12
M
M5 Adjustable Pedal Motor
S48A Multifunction Switch - Instrument Panel
8
A
B81B Park Position Switch
B
X2 2
4
1
5952 BU
6207 WH/RD
6206 BK/GY
B155 Adjustable Pedal Position Sensor
1850 BK
1850 BK
1150 BK
G218
G311

Adjustable Pedals (Z75)


B+
X51R Fuse Block - Instrument Panel Right
F20DR 10A
X2 1
1540 RD/GN
J212
8
S48C Multifunction Switch 1 - Instrument Panel
A90 Logic
B+
5
1850 BK
G218
Data Communication Schematics
5060 GN
7530 GN/WH
X2 1 3
B+
B+
X51L Fuse Block - Instrument Panel Left
F44DL 30A
F27DL 10A
X1 27 5
1140 RD/BN
-ULT
ULT
J385
1140 RD/BN
5040 RD/YE
X310 2 23
5040 RD/YE
1140 RD/BN
X1 2 1
B+ B+
K40D Seat Memory Control Module - Driver
5V
X6 6 7
X4 1 2
X6 4
X5 13 6
X2 5
5286 GN/GY
5285 WH/GY
5130 GN/VT
5129 YE
5952 BU
6207 WH/RD
6206 BK/GY
X310 9 10 4 3 14 13 15
X1 42 36
X2 21 12 11 8 22
X61A Junction Block - Instrument Panel
X5 29 25
X8 18 16 15 14 17
X1 1 4 2 5 3
M
M5 Adjustable Pedal Motor
X2 2 4 1
B155 Adjustable Pedal Position Sensor
K9 Body Control Module
X7 13
1932 GN/WH
X275 26
1932 GN/WH
X201 40
1932 WH/VT
A
B81B Park Position Switch
B
1850 BK
G218
1150 BK
G311
L O C
D E S C

Description and Operation

Adjustable Pedals Description and Operation (Without A45)

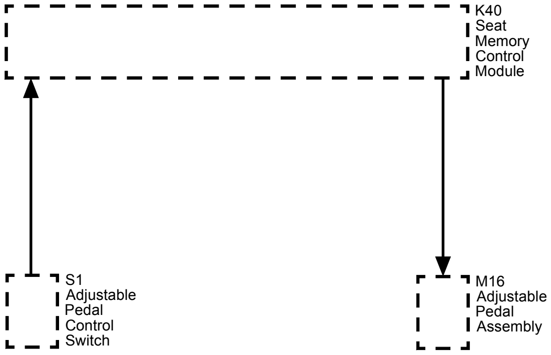
The adjustable pedals system is controlled by the adjustable pedals switch and the adjustable pedals relay and operation can occur only while the transmission selector lever is in the park position. The adjustable pedals assembly is moved forward or rearward by a motor which is fixed to the brake pedal actuator with a drive cable to the accelerator pedal actuator. In an inactive state both of the outputs to the motor are closed to ground. The adjustable pedals switch controls the adjustable pedals relay by applying battery voltage to one of the coils. The adjustable pedals motor is bidirectional and the direction of the pedal assembly travel is determined by which of the relay output circuits is switched to battery positive voltage while the other remains grounded. The adjustable pedals system uses the same motor and sensor assembly even when it is not equipped with the memory seats. The adjustable pedals position sensor is not used and does not have any circuits connected. The adjustable pedals position manually controlled by activating the switch in the forward or rearward direction until the desired position is reached.

Adjustable Pedals Description and Operation (With A45)

Adjustable Pedals System Components

The adjustable pedals system consists of the following components:

- The multifunction switch – instrument panel
- The seat memory control module
- The adjustable pedal motor
- The adjustable pedal position sensor



Adjustable Pedals System Operation

The adjustable pedals are not operable when the cruise control is engaged.

The adjustable pedal system is controlled by the seat memory control module. The adjustable pedals are moved forward or backward by a motor which is fastened to the brake pedal assembly with drive cables to the brake and accelerator pedal actuators.

The adjustable pedal motor is controlled by the seat memory control module through two motor control circuits. In an inactive state both control circuits are closed to ground within the module. The seat memory control module drives the adjustable pedal motor in the forward or rearward direction by closing the appropriate control circuit to battery voltage. The adjustable pedal motor is bidirectional and the direction of the pedal assembly travel is determined by which of the motor control circuits is switched to battery voltage while the other remains grounded.

The adjustable pedal forward and rearward switches are inputs to the module. Battery voltage is supplied to the switch from the seat memory control module. When the switch is operated to the forward or rearward direction the forward or rearward switch signal circuit is closed to the battery voltage circuit. Battery voltage on a switch signal circuit indicates to the seat memory control module that the switch is active.

The seat memory control module monitors the locations of the adjustable pedals using the adjustable pedal position sensor. The position sensor is supplied with a 5 V reference and ground circuit from the seat memory control module. The position sensor signal circuit is referenced from ground within the module. The position sensor signal circuit voltage levels are used by the seat memory control module to determine the positions of the adjustable pedals when storing or recalling memory position settings.

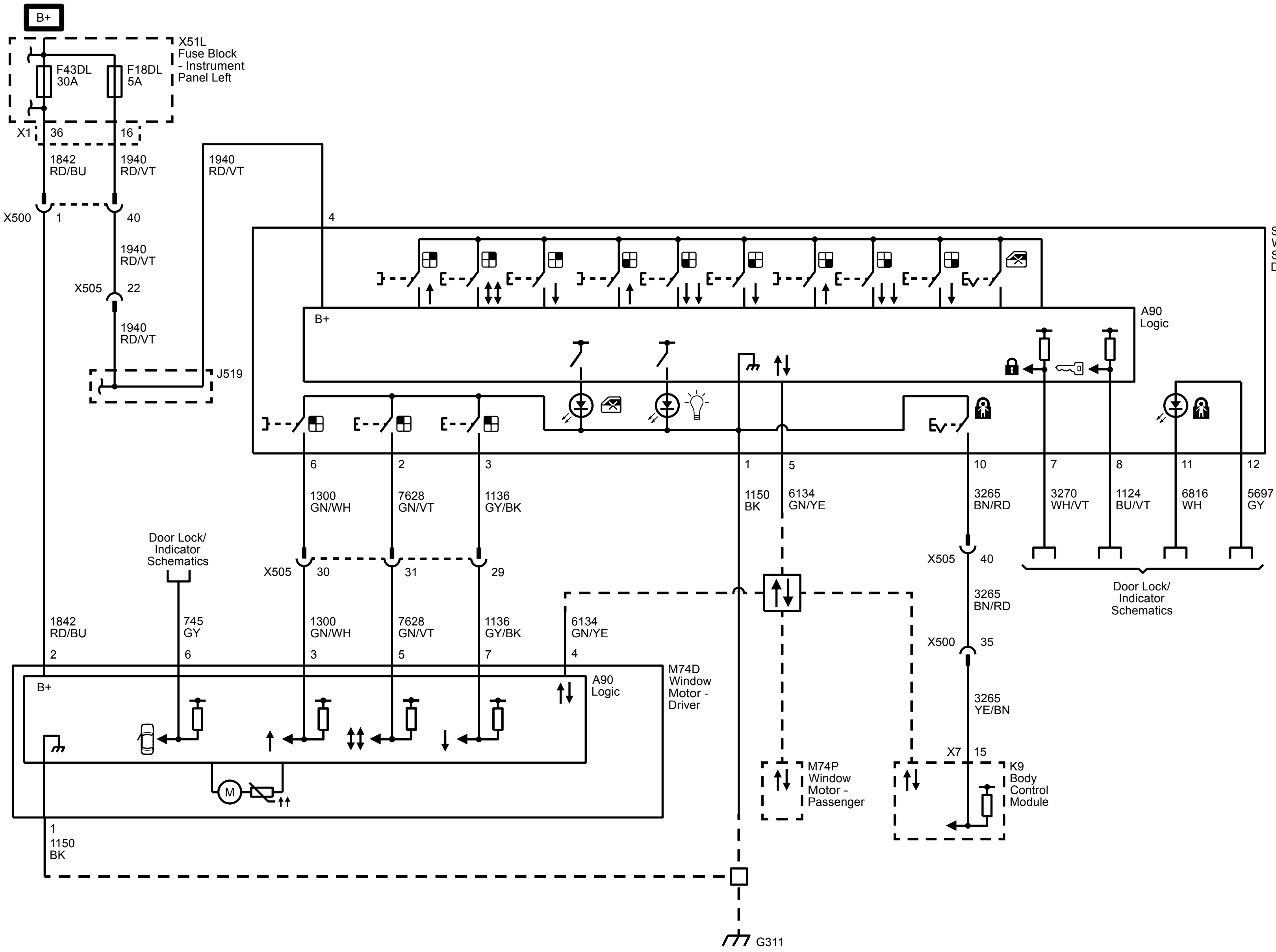
Body Systems

Fixed and Moveable Windows

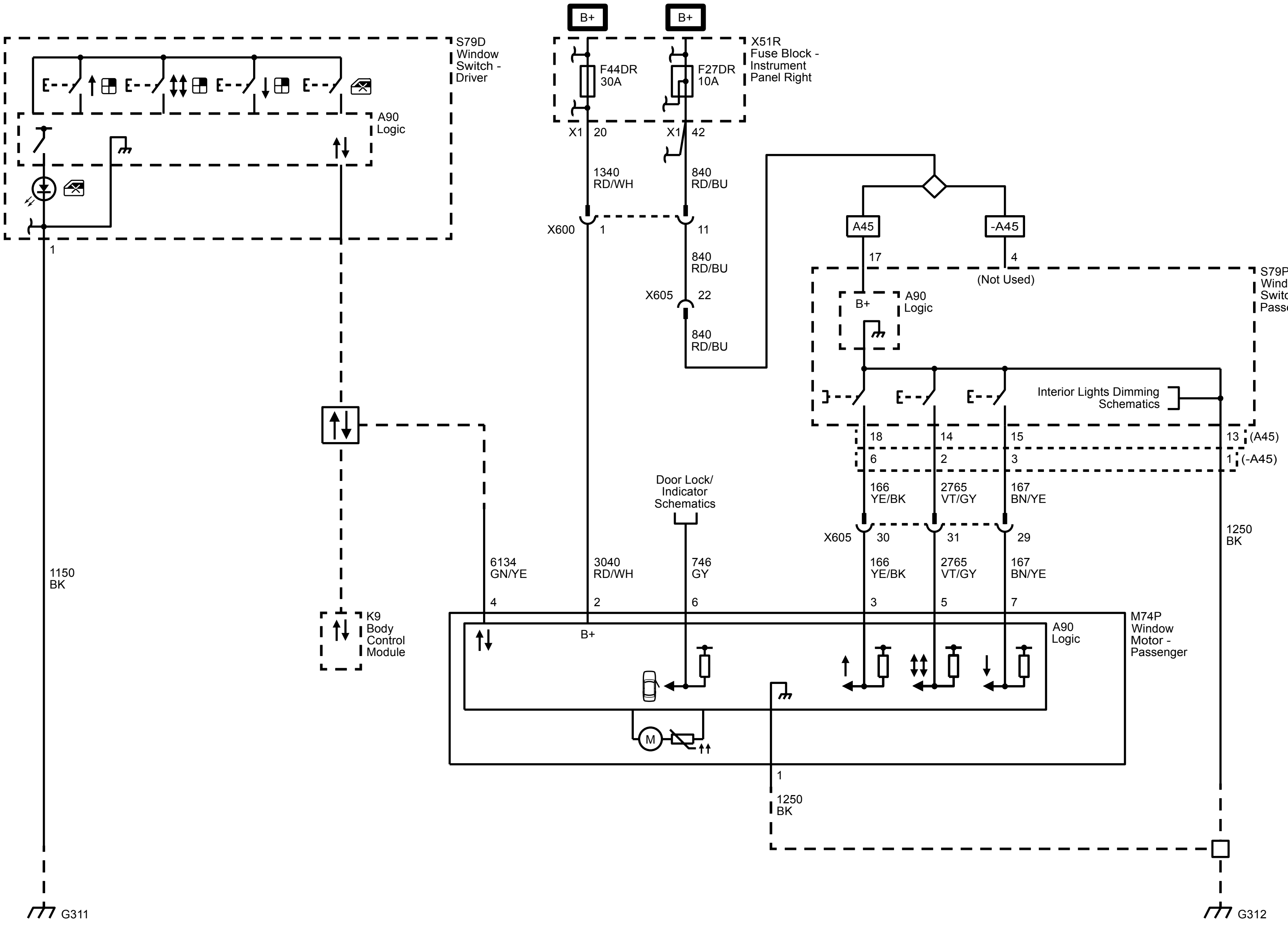
Schematic and Routing Diagrams

Moveable Window Schematics

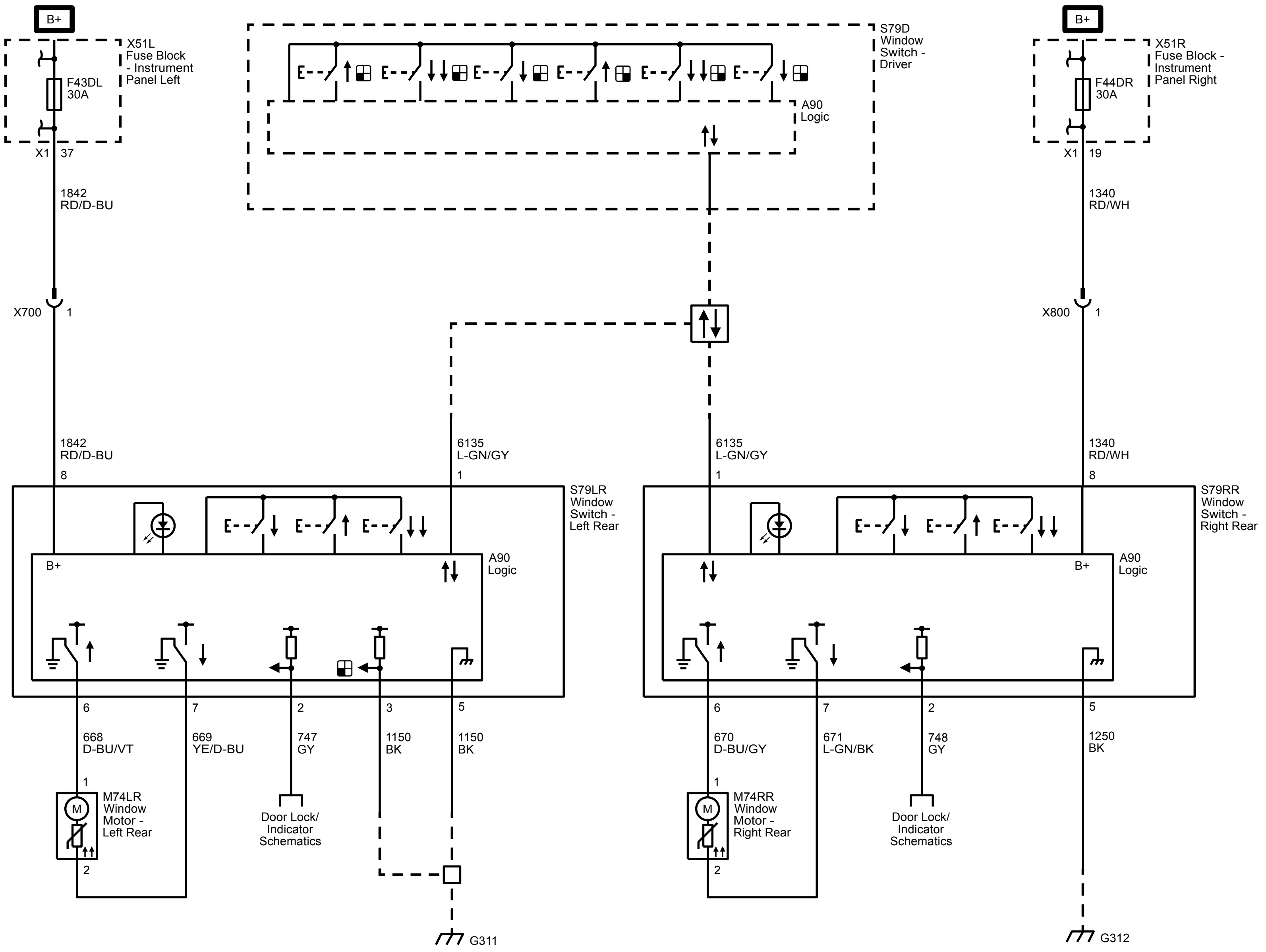
Driver


B+
X51L
Fuse Block
- Instrument
Panel Left
F43DL
30A
F18DL
5A
X1
36
16
1842
RD/BU
1940
RD/VT
1940
RD/VT
X500
1
40
4
1940
RD/VT
X505
22
1940
RD/VT
J519
S79D
Window
Switch -
Driver
B+
A90
Logic
6
2
3
1
5
10
7
8
11
12
1300
GN/WH
7628
GN/VT
1136
GY/BK
1150
BK
6134
GN/YE
3265
BN/RD
3270
WH/VT
1124
BU/VT
6816
WH
5697
GY
Door Lock/
Indicator
Schematics
X505
30
31
29
X505
40
3265
BN/RD
Door Lock/
Indicator
Schematics
X500
35
3265
YE/BN
1842
RD/BU
745
GY
1300
GN/WH
7628
GN/VT
1136
GY/BK
6134
GN/YE
2
6
3
5
7
4
B+
A90
Logic
M74D
Window
Motor -
Driver
M
X7
15
M74P
Window
Motor -
Passenger
K9
Body
Control
Module
1
1150
BK
G311

Passenger

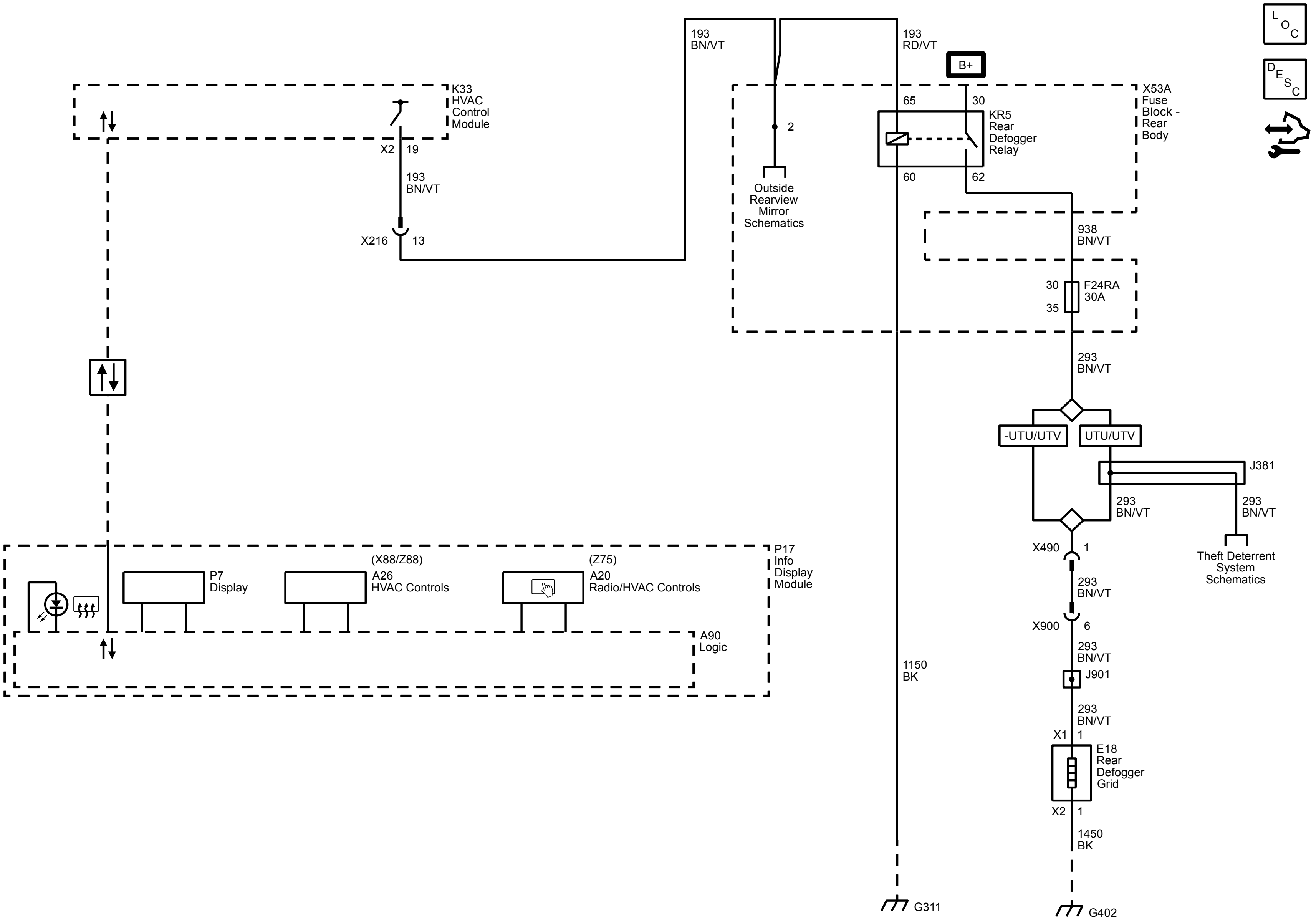

B+
B+
S79D Window Switch - Driver
A90 Logic
X51R Fuse Block - Instrument Panel Right
F44DR 30A
F27DR 10A
X1 20
X1 42
1340 RD/WH
840 RD/BU
X600 1
11
840 RD/BU
X605 22
840 RD/BU
1
A45
-A45
17
4
(Not Used)
S79P Window Switch - Passenger
A90 Logic
B+
Interior Lights Dimming Schematics
18
14
15
13 (A45)
6
2
3
1 (-A45)
166 YE/BK
2765 VT/GY
167 BN/YE
X605 30
31
29
166 YE/BK
2765 VT/GY
167 BN/YE
1250 BK
Door Lock/ Indicator Schematics
1150 BK
6134 GN/YE
3040 RD/WH
746 GY
K9 Body Control Module
4
2
6
3
5
7
B+
A90 Logic
M74P Window Motor - Passenger
M
1
1250 BK
G311
G312

Rear Doors


B+
X51L
Fuse Block
- Instrument
Panel Left
F43DL
30A
X1 37
1842
RD/D-BU
X700 1
S79D
Window
Switch -
Driver
A90
Logic
B+
X51R
Fuse Block -
Instrument
Panel Right
F44DR
30A
X1 19
1340
RD/WH
X800 1
1842
RD/D-BU
8
6135
L-GN/GY
1
6135
L-GN/GY
1
1340
RD/WH
8
S79LR
Window
Switch -
Left Rear
B+
A90
Logic
6
7
2
3
5
668
D-BU/VT
669
YE/D-BU
747
GY
1150
BK
1150
BK
1
M74LR
Window
Motor -
Left Rear
M
2
Door Lock/
Indicator
Schematics
G311
S79RR
Window
Switch -
Right Rear
A90
Logic
B+
6
7
2
5
670
D-BU/GY
671
L-GN/BK
748
GY
1250
BK
1
M74RR
Window
Motor -
Right Rear
M
2
Door Lock/
Indicator
Schematics
G312

Defogger Schematics

Defogger


193
BN/VT
193
RD/VT
B+
L O C
D E S C
K33
HVAC
Control
Module
X2
19
193
BN/VT
X216
13
2
Outside
Rearview
Mirror
Schematics
65
30
KR5
Rear
Defogger
Relay
60
62
X53A
Fuse
Block -
Rear
Body
938
BN/VT
30
35
F24RA
30A
293
BN/VT
-UTU/UTV
UTU/UTV
J381
293
BN/VT
293
BN/VT
Theft Deterrent
System
Schematics
X490
1
293
BN/VT
X900
6
293
BN/VT
J901
293
BN/VT
X1
1
E18
Rear
Defogger
Grid
X2
1
1450
BK
1150
BK
G311
G402
P17
Info
Display
Module
P7
Display
(X88/Z88)
A26
HVAC Controls
(Z75)
A20
Radio/HVAC Controls
A90
Logic

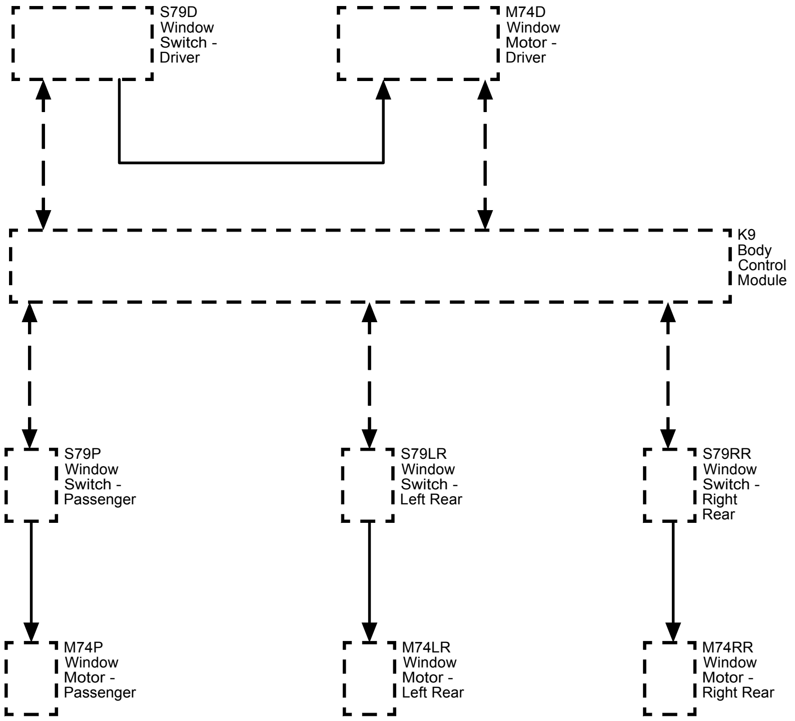
Description and Operation

Power Windows Description and Operation

Power Windows System Components

The power window system consists of the following components:

- Driver window switch
- Passenger window switch
- Left rear window switch
- Right rear window switch
- Right rear door latch
- Left rear door latch
- Window motors in each of the doors
- 30A Fuse
- Body control module (BCM)


S79D Window Switch - Driver
M74D Window Motor - Driver
K9 Body Control Module
S79P Window Switch - Passenger
S79LR Window Switch - Left Rear
S79RR Window Switch - Right Rear
M74P Window Motor - Passenger
M74LR Window Motor - Left Rear
M74RR Window Motor - Right Rear

Driver Express Up and Express Down Power Window Motor

The driver door contains a window motor is smart motor that will detect excessive resistance while performing the express up function and automatically reverse direction to prevent injury to any occupants that may become trapped between the closing window and the door frame. The automatic reverse safety feature can be overridden by pulling and holding the window switch.

The logic circuit within the window motor monitors the up, down and express signal circuits which are normally equal to B+ voltage. When a switch is used on the driver window switch, the contacts close causing a voltage drop within the appropriate signal circuit. The driver window motor will detect the voltage drop and will command the window to move in the direction requested.

Passenger, Left Rear and Right Rear Express Down Window Motors

For the passenger, right rear and left rear doors, when their window switch is pressed in the down position, battery positive voltage is applied to their respective window motor control circuit and ground to the other window motor control circuit causing that window to open. When the individual window switch is pulled in the up position, voltage and ground is applied to the window motor in the opposite direction causing that window to close. The return path to ground is supplied through the inactive control circuit being normally grounded through the window switch.

Each passenger and rear window switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger, left rear or right rear window, the driver will use the appropriate switch on the driver window switch. When this switch is used, a serial data message is sent to the BCM requesting a window motor command, the BCM will then send a serial data message to the appropriate door window switch which will then command that window to move in the direction requested.

Lockout Switch Feature

The driver power window switch contains a window lockout switch, when the driver presses the window lockout switch, a serial data message is sent to the BCM which will send a disable command to the rear window motors, the rear window motors will then ignore all voltage drops in the window motor control circuits caused by using the rear window switches. The rear windows will still function normally from the switches on the driver window switch.

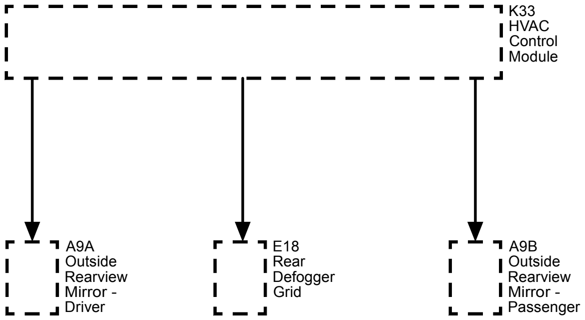
Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC control module
- Rear defogger relay
- Rear defogger grid
- 40A fuse

Rear Window Defogger Block Diagram



Rear Window Defogger Operation

The rear defog control system utilizes a single zone backlight design, driven with a single relay configuration. Additionally, up to two outside rear view mirrors can be heated if equipped. A switch for the customer to control the system is provided within the HVAC control module, also included in the HVAC control module is an indicator to inform the customer with the current state of the system. The system is only operational when engine is running or during remote start.

Pressing the heated rear window switch on the HVAC control module causes the HVAC control module to provide voltage to the coil side of the rear defogger relay, this will energize the relay causing the relay switch contacts to close allowing B+ voltage to flow through the rear defogger grid control circuit to the rear defogger grid.

When the rear heated window switch is pressed and the engine is running, the rear defog control system will remain active for 10 minutes. After the initial cycle has lapsed, pressing the switch again will continue rear window defogger operation, but the cycle will only last 5 minutes.

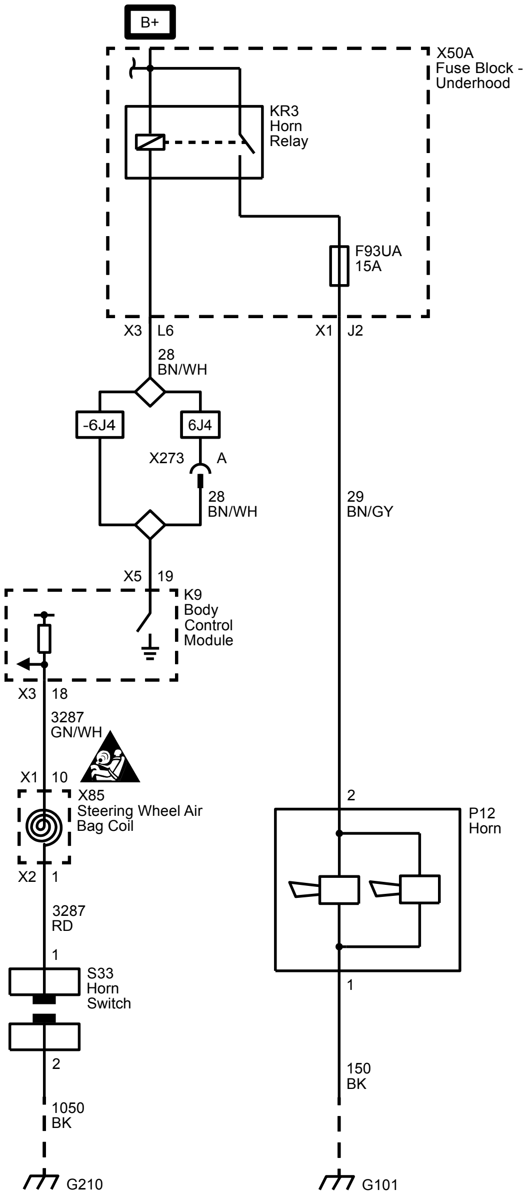
Body Systems

Horns

Schematic and Routing Diagrams

Horn Schematics

Horn


B+
X50A
Fuse Block - Underhood
KR3
Horn
Relay
F93UA
15A
X3
L6
X1
J2
28
BN/WH
-6J4
6J4
X273
A
28
BN/WH
29
BN/GY
X5
19
K9
Body
Control
Module
X3
18
3287
GN/WH
X1
10
X85
Steering Wheel Air Bag Coil
X2
1
3287
RD
1
S33
Horn
Switch
2
1050
BK
G210
2
P12
Horn
1
150
BK
G101

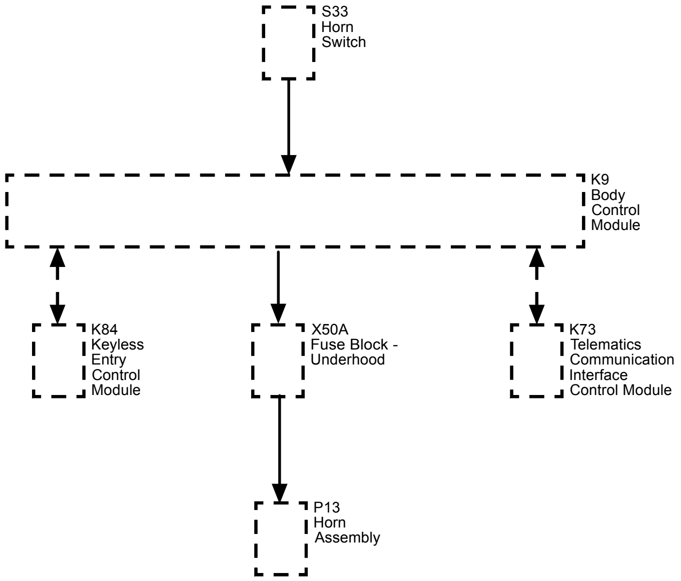
Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- HORN fuse
- Horn relay
- Horn switch
- Horn assembly
- Body control module (BCM)



System Operation

The vehicle horn system is activated under the following conditions:

- When the horn switch is depressed
- The BCM commands the horns ON under any of the following conditions:
  - When the content theft deterrent system detects a vehicle intrusion—For further information refer to CELL Link Error - Link target cell (cell ID 149050) is invalid for this publication..
  - When the panic button is depressed on the remote control door lock transmitter—For further information refer to Keyless Entry System Description and Operation (With ATH)Keyless Entry System Description and Operation (Without ATH).
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to Keyless Entry System Description and Operation (With ATH)Keyless Entry System Description and Operation (Without ATH).
  - When the OnStar® system is used to sound the horns if equipped—For further information, refer to CELL Link Error - Link target cell (cell ID 149754) is invalid for this publication..

Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing either of the horn switches applies ground to the horn relay control circuit. The BCM may also apply ground to the horn relay control circuit as described above. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

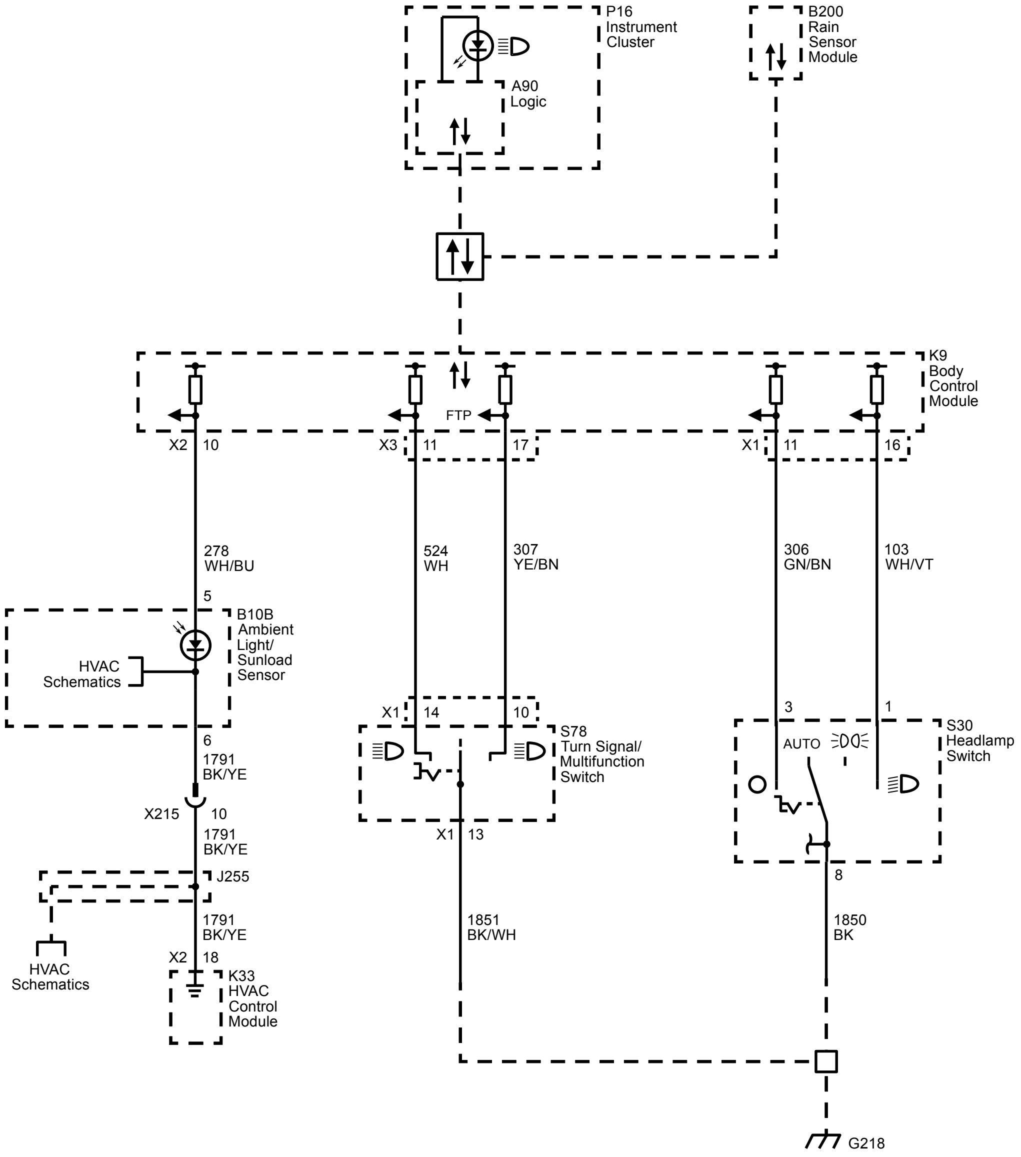
Body Systems

Lighting

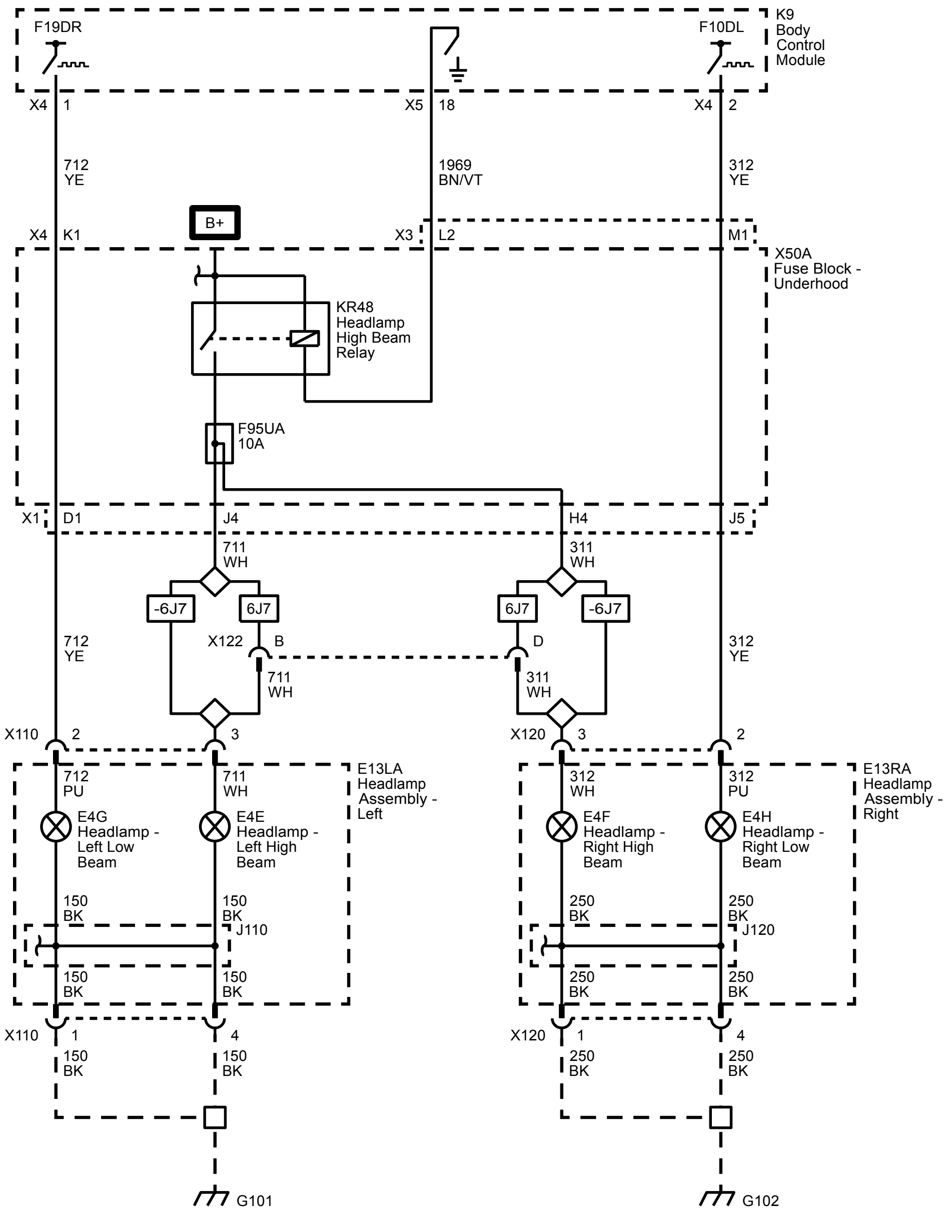
Schematic and Routing Diagrams

Headlights/Daytime Running Lights (DRL) Schematics (X88 or Z88)

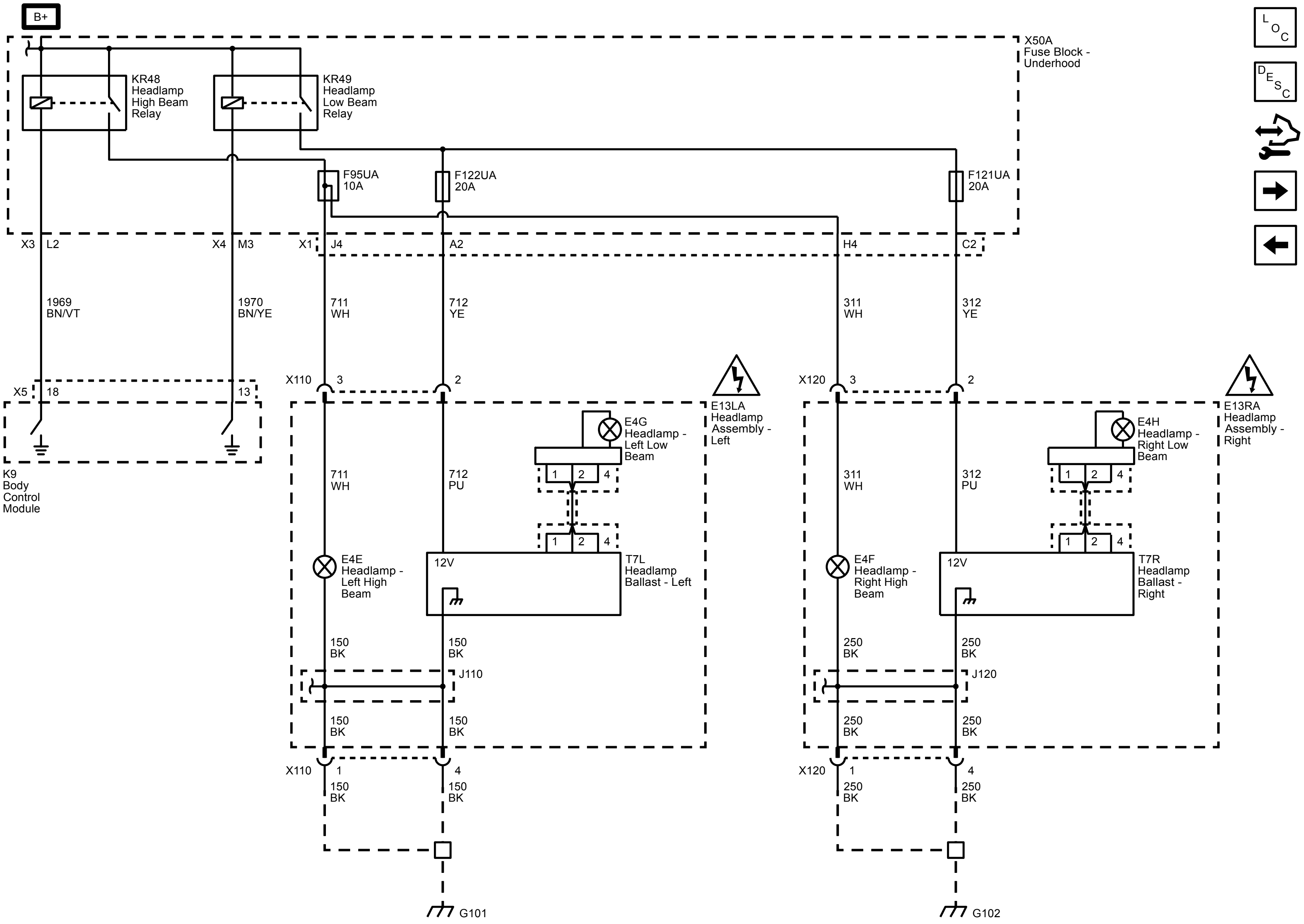
Controls and Indicator


P16
Instrument
Cluster
A90
Logic
B200
Rain
Sensor
Module
K9
Body
Control
Module
FTP
X2
10
X3
11
17
X1
11
16
278
WH/BU
524
WH
307
YE/BN
306
GN/BN
103
WH/VT
5
B10B
Ambient
Light/
Sunload
Sensor
HVAC
Schematics
6
1791
BK/YE
X215
10
1791
BK/YE
J255
1791
BK/YE
HVAC
Schematics
X2
18
K33
HVAC
Control
Module
X1
14
10
S78
Turn Signal/
Multifunction
Switch
X1
13
1851
BK/WH
3
1
S30
Headlamp
Switch
AUTO
8
1850
BK
G218

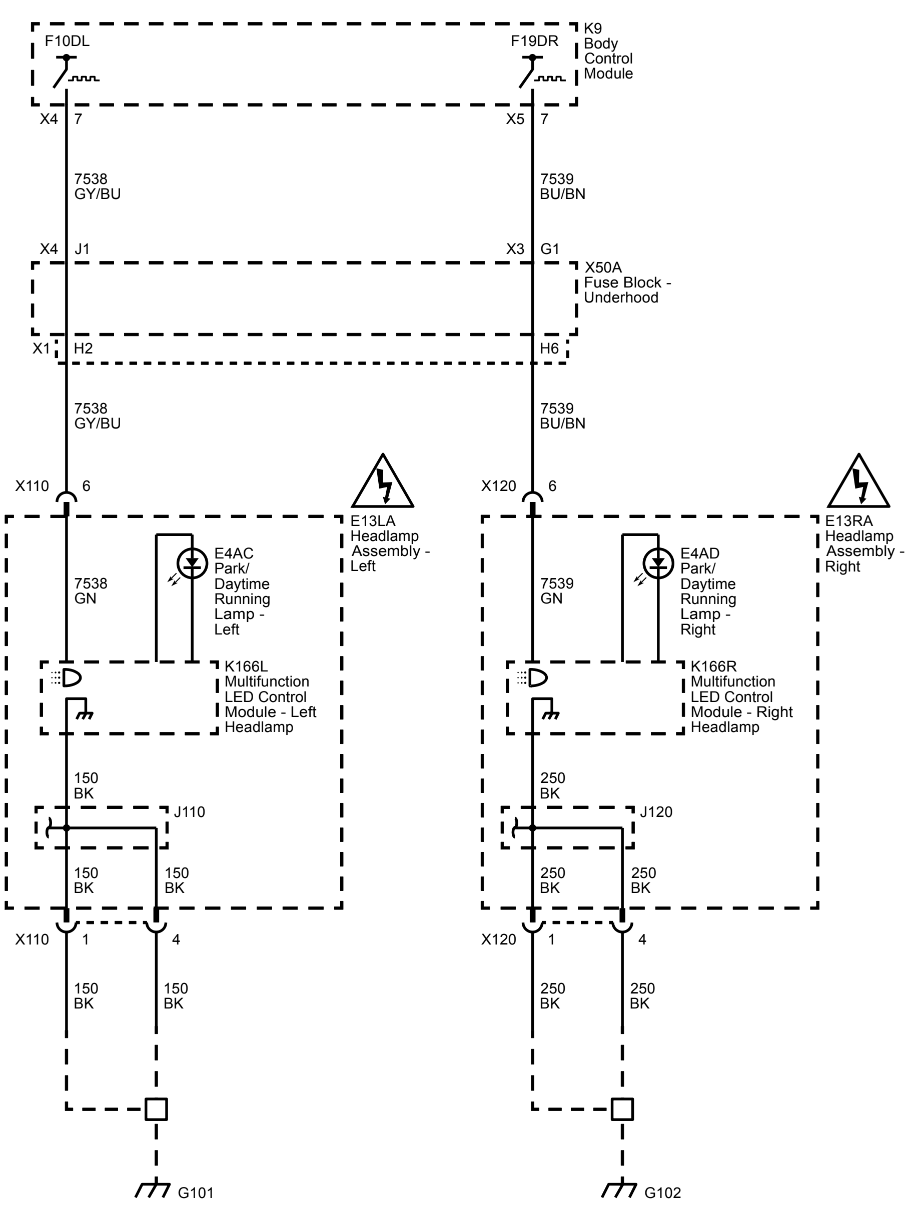
Halogen (without T4F)


F19DR
F10DL
K9
Body
Control
Module
X4 1
X5 18
X4 2
712
YE
1969
BN/VT
312
YE
B+
X4 K1
X3 L2
M1
X50A
Fuse Block -
Underhood
KR48
Headlamp
High Beam
Relay
F95UA
10A
X1 D1
J4
H4
J5
711
WH
311
WH
-6J7
6J7
6J7
-6J7
712
YE
X122 B
D
711
WH
311
WH
312
YE
X110 2
3
X120 3
2
712
PU
711
WH
E13LA
Headlamp
Assembly -
Left
312
WH
312
PU
E13RA
Headlamp
Assembly -
Right
E4G
Headlamp -
Left Low
Beam
E4E
Headlamp -
Left High
Beam
E4F
Headlamp -
Right High
Beam
E4H
Headlamp -
Right Low
Beam
150
BK
150
BK
J110
250
BK
250
BK
J120
150
BK
150
BK
250
BK
250
BK
X110 1
4
X120 1
4
150
BK
150
BK
250
BK
250
BK
G101
G102

High Intensity Discharge (T4F)


B+
X50A
Fuse Block -
Underhood
KR48
Headlamp
High Beam
Relay
KR49
Headlamp
Low Beam
Relay
F95UA
10A
F122UA
20A
F121UA
20A
X3
L2
X4
M3
X1
J4
A2
H4
C2
1969
BN/VT
1970
BN/YE
711
WH
712
YE
311
WH
312
YE
X5
18
13
K9
Body
Control
Module
X110
3
2
X120
3
2
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
E4G
Headlamp -
Left Low
Beam
E4H
Headlamp -
Right Low
Beam
1
2
4
711
WH
712
PU
311
WH
312
PU
E4E
Headlamp -
Left High
Beam
E4F
Headlamp -
Right High
Beam
12V
T7L
Headlamp
Ballast - Left
T7R
Headlamp
Ballast -
Right
150
BK
250
BK
J110
J120
X110
1
4
X120
1
4
G101
G102

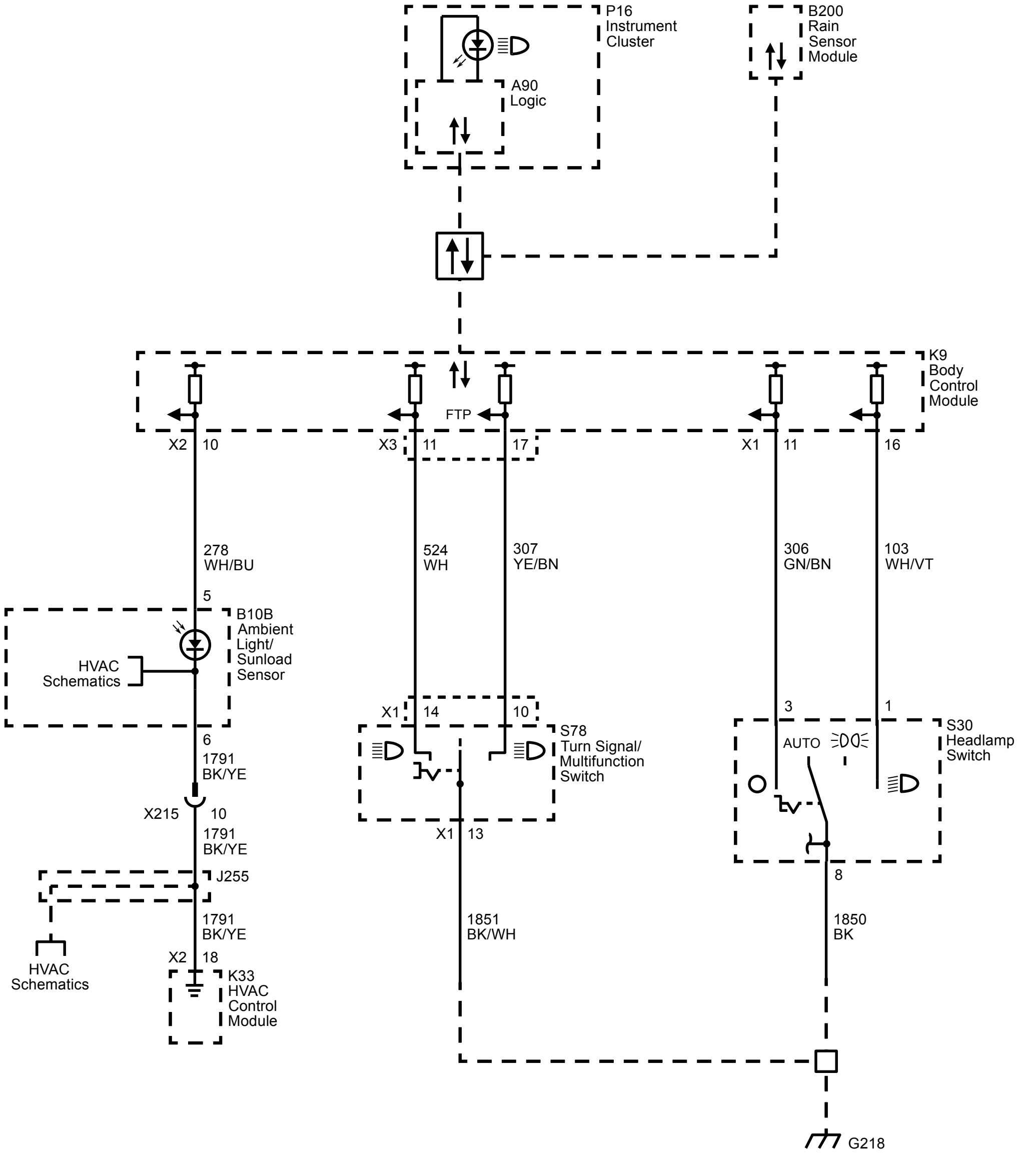
Daytime Running Lights (X88 with TB8 or T4F) or (Z88)


F10DL
F19DR
K9
Body
Control
Module
X4 7
X5 7
7538
GY/BU
7539
BU/BN
X4 J1
X3 G1
X50A
Fuse Block -
Underhood
X1 H2
H6
7538
GY/BU
7539
BU/BN
X110 6
X120 6
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
7538
GN
E4AC
Park/
Daytime
Running
Lamp -
Left
7539
GN
E4AD
Park/
Daytime
Running
Lamp -
Right
K166L
Multifunction
LED Control
Module - Left
Headlamp
K166R
Multifunction
LED Control
Module - Right
Headlamp
150
BK
J110
250
BK
J120
150
BK
150
BK
250
BK
250
BK
X110 1
4
X120 1
4
150
BK
150
BK
250
BK
250
BK
G101
G102

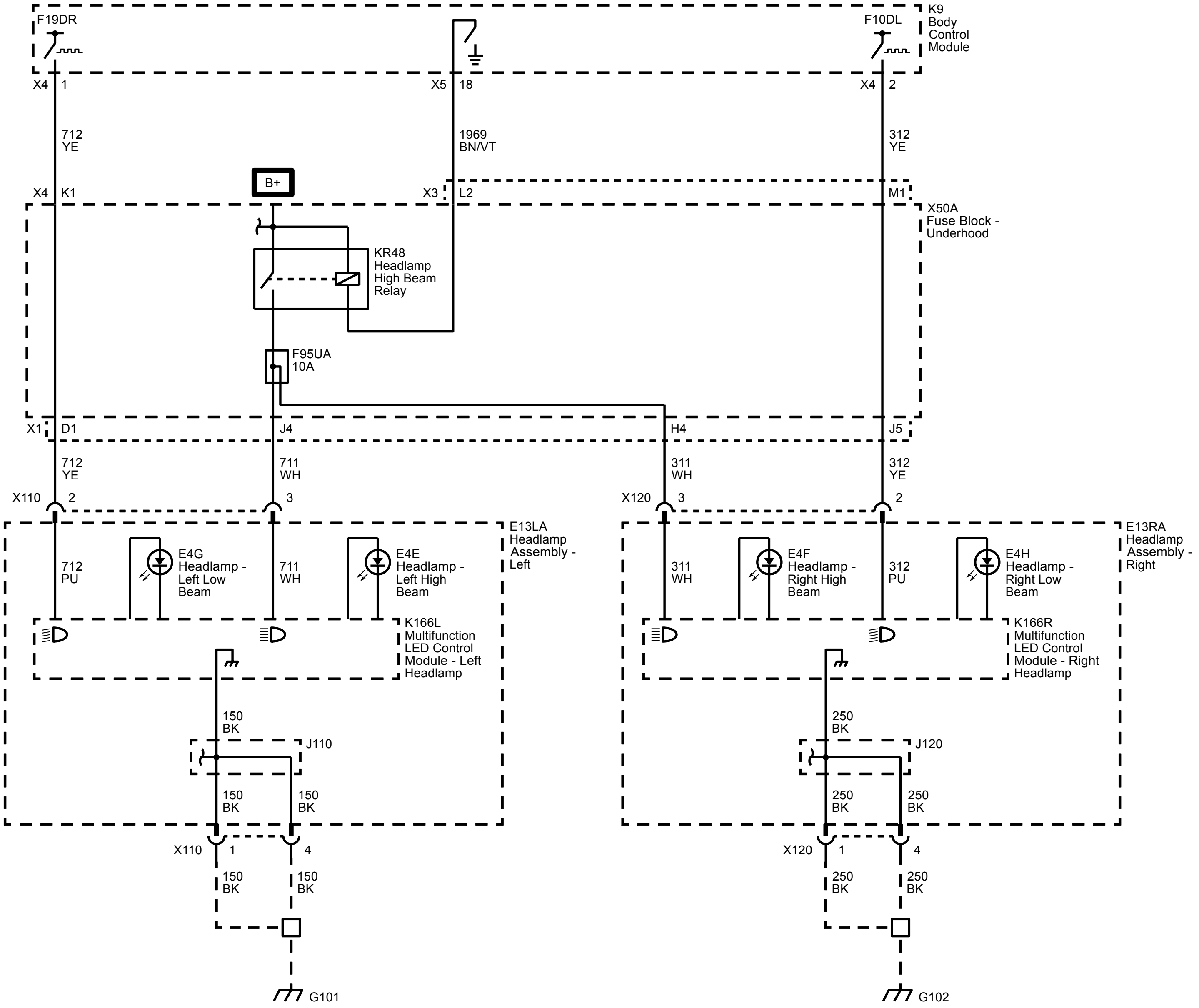
Headlights/Daytime Running Lights (DRL) Schematics (Z75)

Controls and Indicator

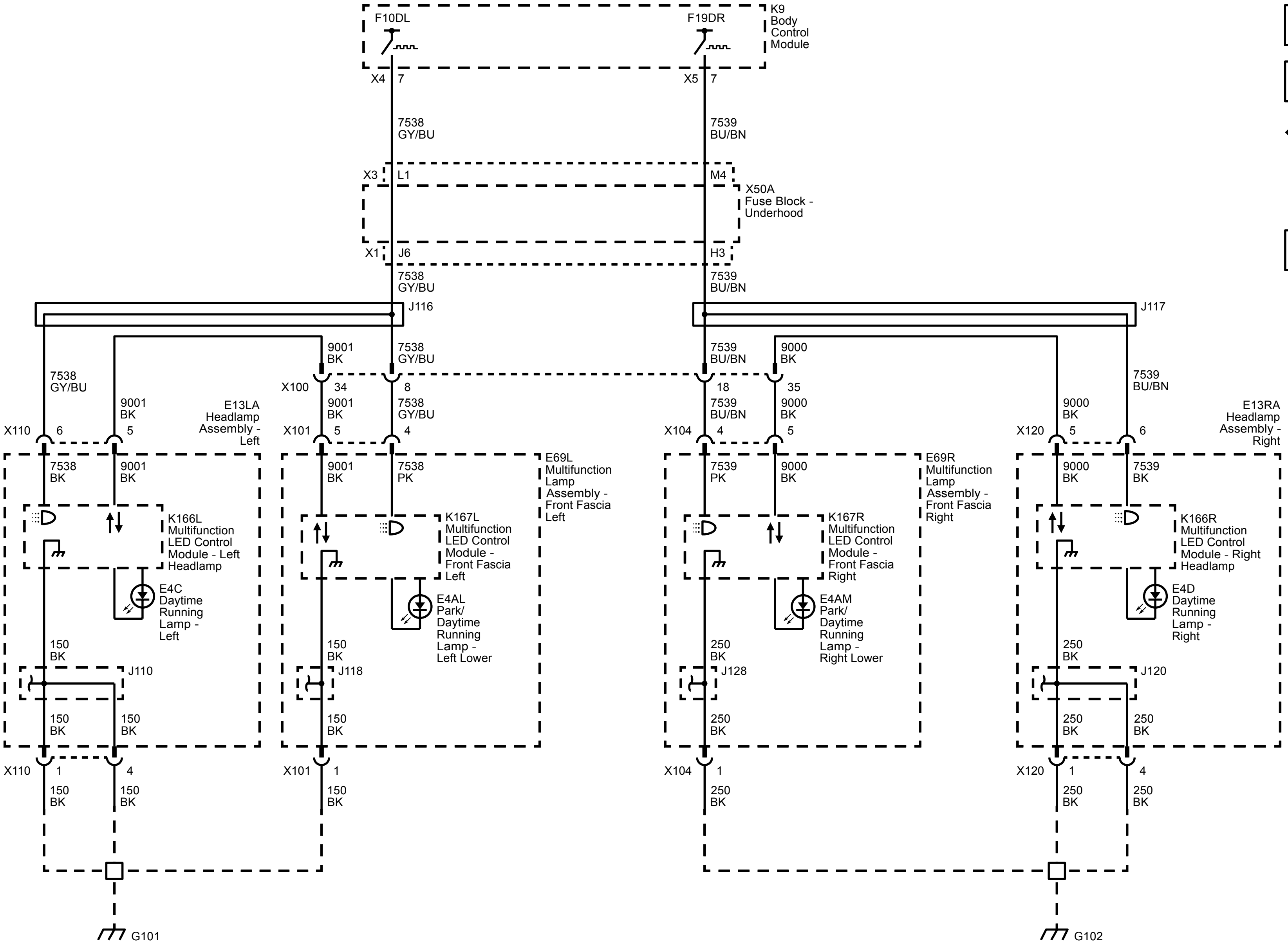
LOC
DESC


P16
Instrument
Cluster
A90
Logic
B200
Rain
Sensor
Module
K9
Body
Control
Module
FTP
X2
10
X3
11
17
X1
11
16
278
WH/BU
524
WH
307
YE/BN
306
GN/BN
103
WH/VT
5
B10B
Ambient
Light/
Sunload
Sensor
HVAC
Schematics
6
1791
BK/YE
X215
10
1791
BK/YE
J255
1791
BK/YE
HVAC
Schematics
X2
18
K33
HVAC
Control
Module
X1
14
10
S78
Turn Signal/
Multifunction
Switch
X1
13
1851
BK/WH
3
1
S30
Headlamp
Switch
AUTO
8
1850
BK
G218

Headlights


K9
Body
Control
Module
F19DR
F10DL
X4 1
X5 18
X4 2
712
YE
1969
BN/VT
312
YE
B+
X4 K1
X3 L2
M1
X50A
Fuse Block -
Underhood
KR48
Headlamp
High Beam
Relay
F95UA
10A
X1 D1
J4
H4
J5
712
YE
711
WH
311
WH
312
YE
X110 2
3
X120 3
2
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
712
PU
E4G
Headlamp -
Left Low
Beam
711
WH
E4E
Headlamp -
Left High
Beam
311
WH
E4F
Headlamp -
Right High
Beam
312
PU
E4H
Headlamp -
Right Low
Beam
K166L
Multifunction
LED Control
Module - Left
Headlamp
K166R
Multifunction
LED Control
Module - Right
Headlamp
150
BK
J110
150
BK
150
BK
250
BK
J120
250
BK
250
BK
X110 1
4
150
BK
150
BK
X120 1
4
250
BK
250
BK
G101
G102

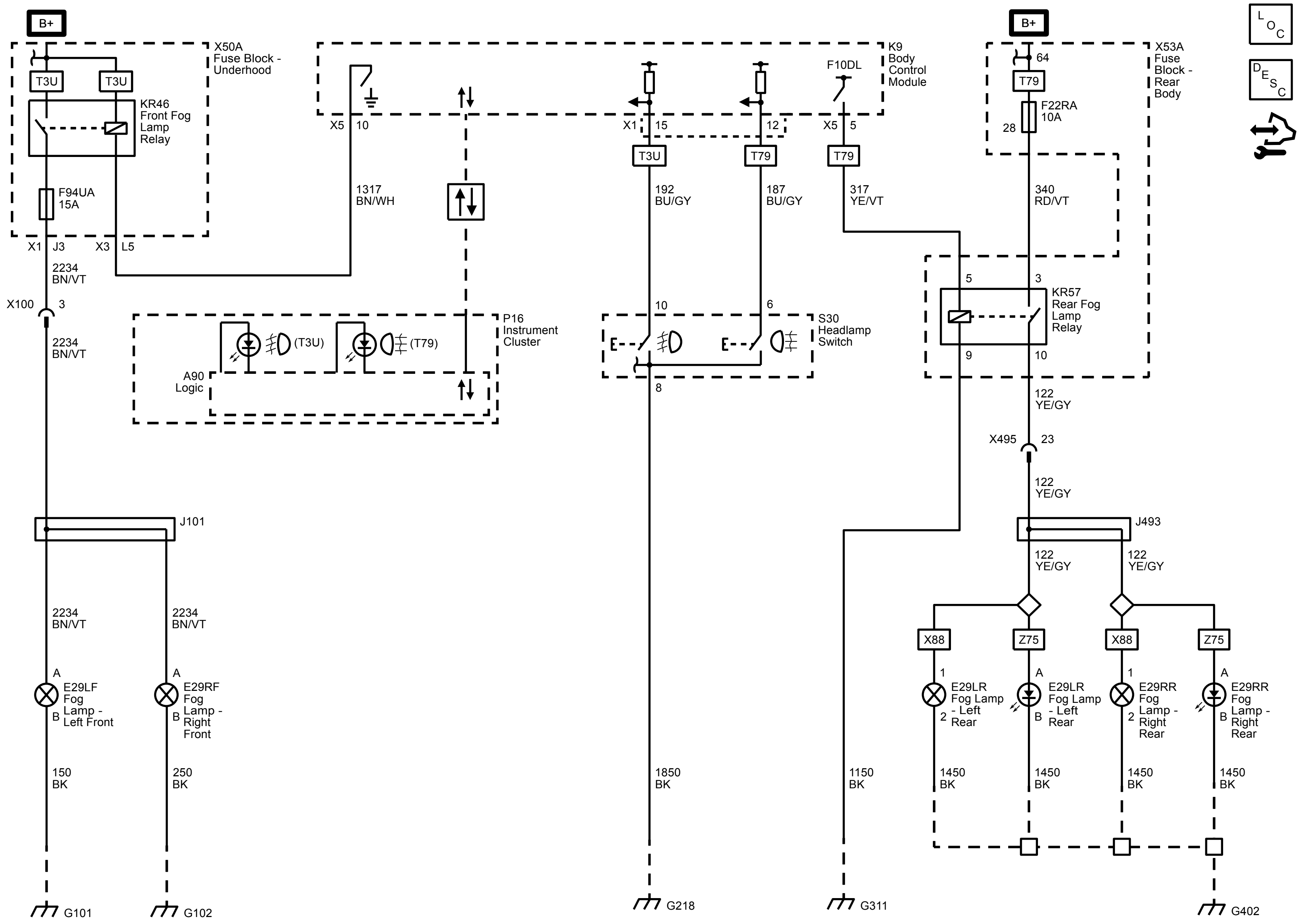
Daytime Running Lights



F10DL
F19DR
K9
Body
Control
Module
X4 7
X5 7
7538
GY/BU
7539
BU/BN
X3 L1
M4
X50A
Fuse Block -
Underhood
X1 J6
H3
7538
GY/BU
7539
BU/BN
J116
J117
9001
BK
7538
GY/BU
7539
BU/BN
9000
BK
X100 34
8
18
35
7538
GY/BU
9001
BK
E13LA
Headlamp
Assembly -
Left
9001
BK
7538
GY/BU
7539
BU/BN
9000
BK
9000
BK
7539
BU/BN
E13RA
Headlamp
Assembly -
Right
X110 6
5
X101 5
4
X104 4
5
X120 5
6
7538
BK
9001
BK
9001
BK
7538
PK
E69L
Multifunction
Lamp
Assembly -
Front Fascia
Left
7539
PK
9000
BK
E69R
Multifunction
Lamp
Assembly -
Front Fascia
Right
9000
BK
7539
BK
K166L
Multifunction
LED Control
Module - Left
Headlamp
K167L
Multifunction
LED Control
Module -
Front Fascia
Left
K167R
Multifunction
LED Control
Module -
Front Fascia
Right
K166R
Multifunction
LED Control
Module - Right
Headlamp
E4C
Daytime
Running
Lamp -
Left
E4AL
Park/
Daytime
Running
Lamp -
Left Lower
E4AM
Park/
Daytime
Running
Lamp -
Right Lower
E4D
Daytime
Running
Lamp -
Right
150
BK
J110
150
BK
J118
250
BK
J128
250
BK
J120
150
BK
150
BK
150
BK
250
BK
250
BK
250
BK
X110 1
4
X101 1
X104 1
X120 1
4
150
BK
150
BK
150
BK
250
BK
250
BK
250
BK
G101
G102

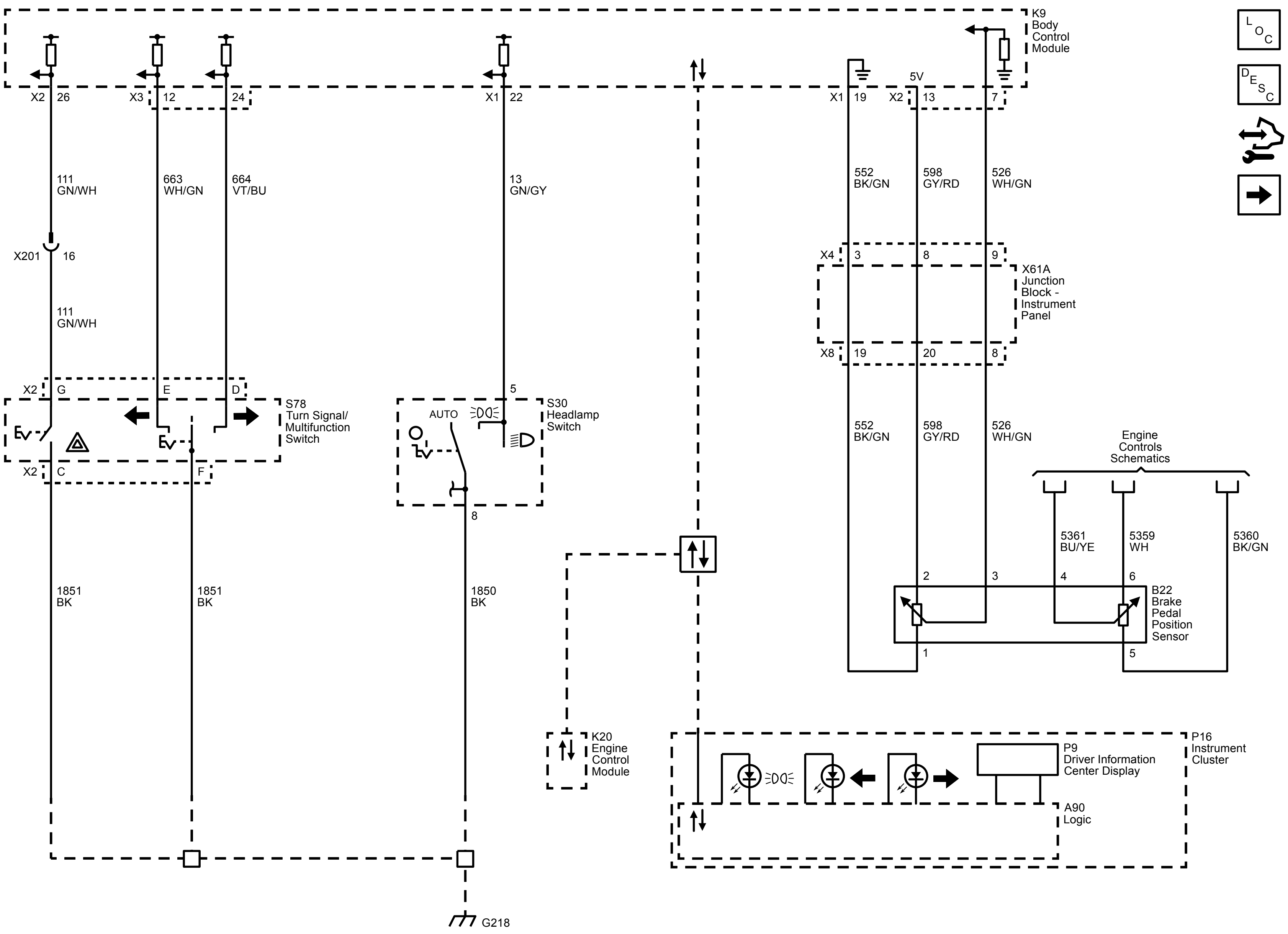
Fog Lights Schematics

Front Fog Lamps (T3U) and Rear Fog Lamps (T79)

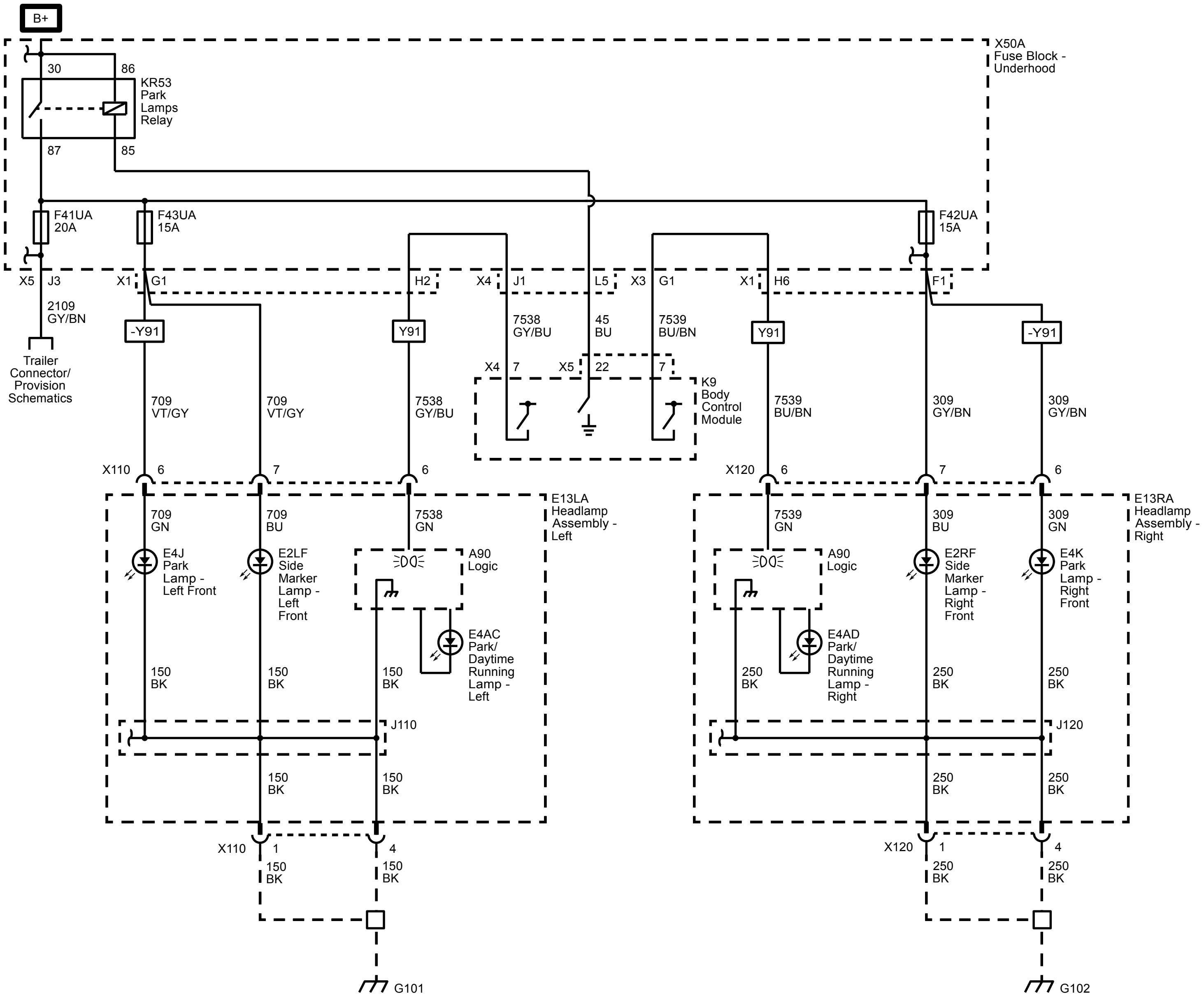

B+
X50A Fuse Block - Underhood
T3U
T3U
KR46 Front Fog Lamp Relay
F94UA 15A
X1 J3
X3 L5
2234 BN/VT
X100 3
2234 BN/VT
J101
2234 BN/VT
2234 BN/VT
A
E29LF Fog Lamp - Left Front
B
A
E29RF Fog Lamp - Right Front
B
150 BK
250 BK
G101
G102
K9 Body Control Module
X5 10
1317 BN/WH
X1 15
12
F10DL
X5 5
T3U
T79
T79
192 BU/GY
187 BU/GY
317 YE/VT
P16 Instrument Cluster
(T3U)
(T79)
A90 Logic
10
6
S30 Headlamp Switch
8
1850 BK
G218
1150 BK
G311
B+
64
X53A Fuse Block - Rear Body
T79
F22RA 10A
28
340 RD/VT
5
3
KR57 Rear Fog Lamp Relay
9
10
122 YE/GY
X495 23
122 YE/GY
J493
122 YE/GY
122 YE/GY
X88
Z75
X88
Z75
1
E29LR Fog Lamp - Left Rear
2
A
E29LR Fog Lamp - Left Rear
B
1
E29RR Fog Lamp - Right Rear
2
A
E29RR Fog Lamp - Right Rear
B
1450 BK
1450 BK
1450 BK
1450 BK
G402
L O C
D E S C

Exterior Lights Schematics

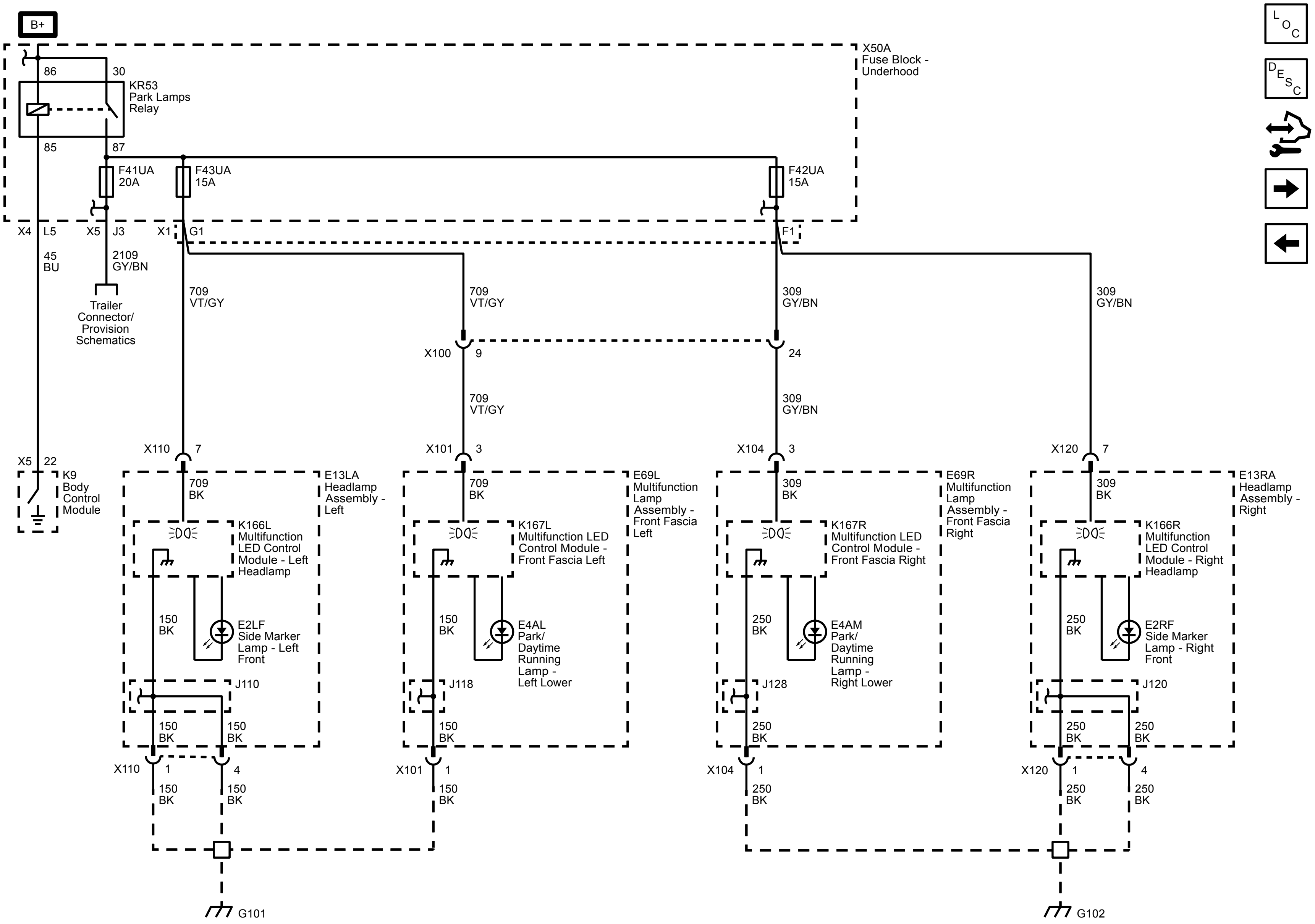
Parklamps and Controls


K9
Body
Control
Module
X2 26
X3 12 24
X1 22
X1 19
X2 13
5V
7
111
GN/WH
663
WH/GN
664
VT/BU
13
GN/GY
552
BK/GN
598
GY/RD
526
WH/GN
X201 16
111
GN/WH
X4 3 8 9
X61A
Junction
Block -
Instrument
Panel
X8 19 20 8
552
BK/GN
598
GY/RD
526
WH/GN
X2 G E D
S78
Turn Signal/
Multifunction
Switch
X2 C F
5
AUTO
S30
Headlamp
Switch
8
Engine
Controls
Schematics
5361
BU/YE
5359
WH
5360
BK/GN
2 3 4 6
B22
Brake
Pedal
Position
Sensor
1 5
1851
BK
1851
BK
1850
BK
K20
Engine
Control
Module
P9
Driver Information
Center Display
P16
Instrument
Cluster
A90
Logic
G218
L O C
D E S C

Park Lamps (X88 and Z88)

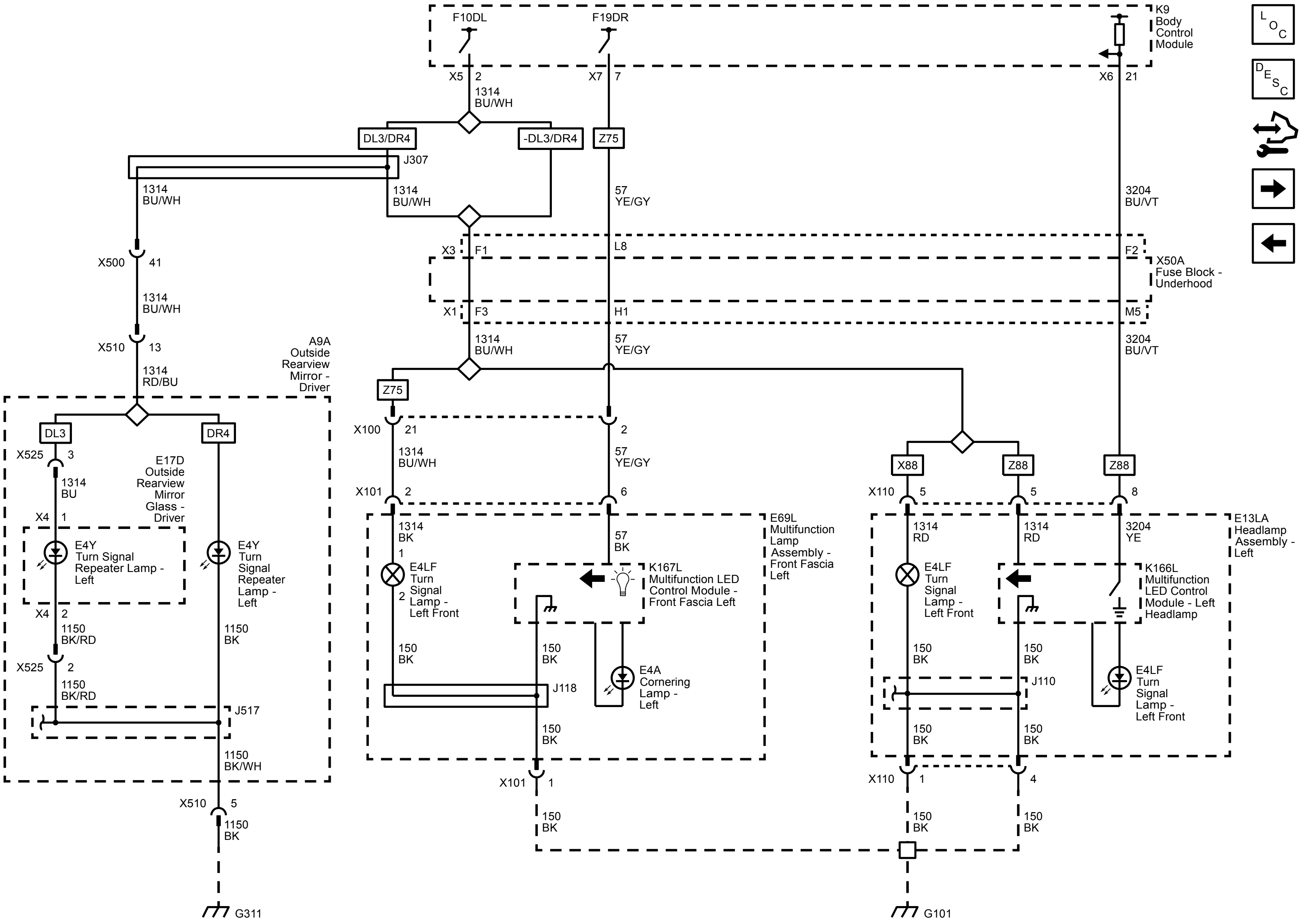

B+
X50A Fuse Block - Underhood
30
86
KR53 Park Lamps Relay
87
85
F41UA 20A
F43UA 15A
F42UA 15A
X5
J3
X1
G1
H2
X4
J1
L5
X3
G1
X1
H6
F1
2109 GY/BN
Trailer Connector/ Provision Schematics
-Y91
Y91
Y91
-Y91
7538 GY/BU
45 BU
7539 BU/BN
X4
7
X5
22
7
K9 Body Control Module
709 VT/GY
709 VT/GY
7538 GY/BU
7539 BU/BN
309 GY/BN
309 GY/BN
X110
6
7
6
X120
6
7
6
E13LA Headlamp Assembly - Left
709 GN
709 BU
7538 GN
E4J Park Lamp - Left Front
E2LF Side Marker Lamp - Left Front
A90 Logic
E4AC Park/ Daytime Running Lamp - Left
150 BK
150 BK
150 BK
J110
150 BK
150 BK
X110
1
4
150 BK
150 BK
G101
E13RA Headlamp Assembly - Right
7539 GN
309 BU
309 GN
A90 Logic
E2RF Side Marker Lamp - Right Front
E4K Park Lamp - Right Front
E4AD Park/ Daytime Running Lamp - Right
250 BK
250 BK
250 BK
J120
250 BK
250 BK
X120
1
4
250 BK
250 BK
G102

Park Lamps (Z75)



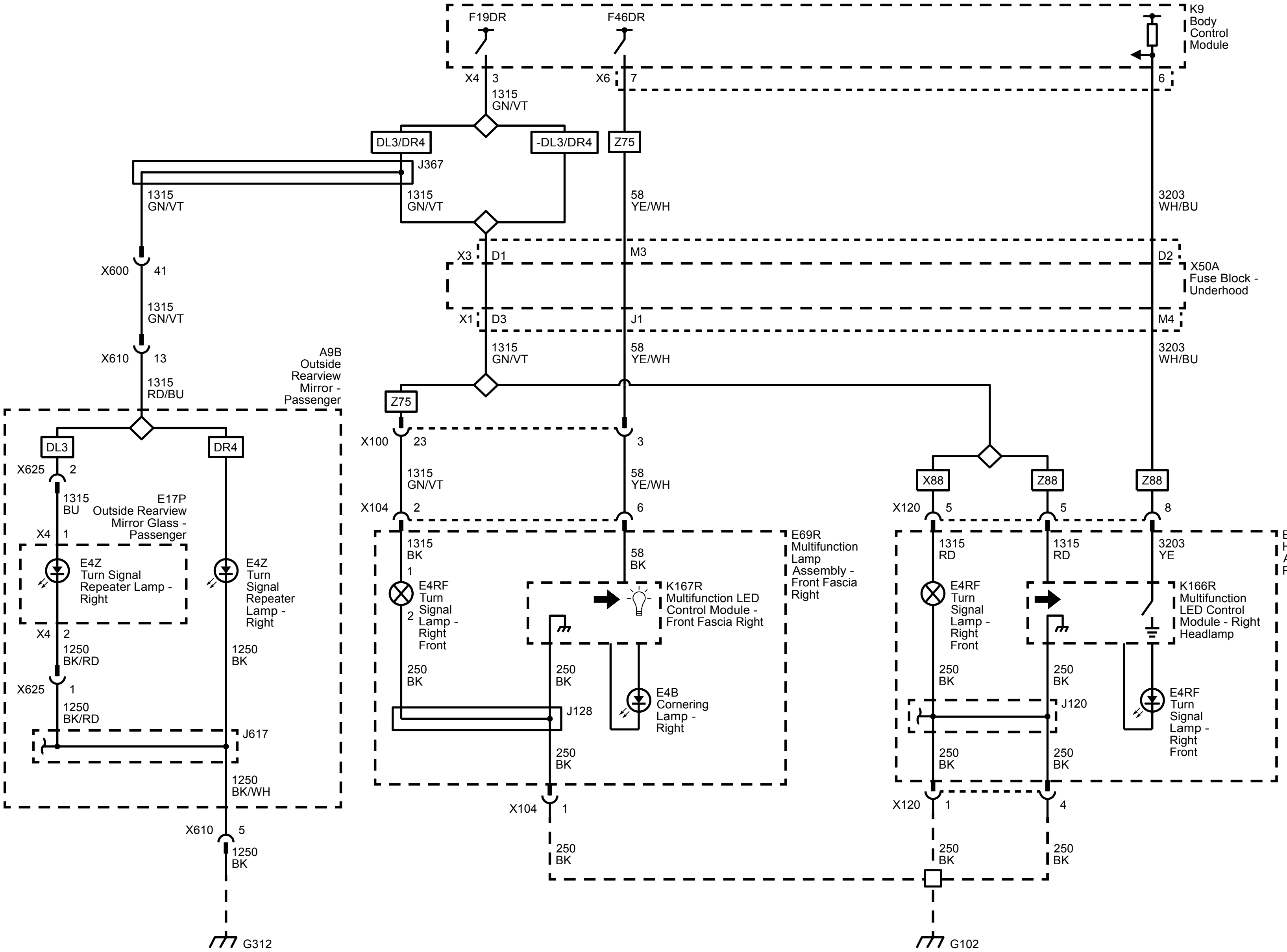
B+
X50A
Fuse Block - Underhood
86
30
KR53
Park Lamps Relay
85
87
F41UA
20A
F43UA
15A
F42UA
15A
X4
L5
X5
J3
X1
G1
F1
45
BU
2109
GY/BN
Trailer Connector/ Provision Schematics
709
VT/GY
709
VT/GY
309
GY/BN
309
GY/BN
X100
9
24
709
VT/GY
309
GY/BN
X5
22
K9
Body Control Module
X110
7
X101
3
X104
3
X120
7
E13LA
Headlamp Assembly - Left
709
BK
K166L
Multifunction LED Control Module - Left Headlamp
E2LF
Side Marker Lamp - Left Front
150
BK
J110
150
BK
150
BK
E69L
Multifunction Lamp Assembly - Front Fascia Left
709
BK
K167L
Multifunction LED Control Module - Front Fascia Left
E4AL
Park/ Daytime Running Lamp - Left Lower
150
BK
J118
150
BK
E69R
Multifunction Lamp Assembly - Front Fascia Right
309
BK
K167R
Multifunction LED Control Module - Front Fascia Right
E4AM
Park/ Daytime Running Lamp - Right Lower
250
BK
J128
250
BK
E13RA
Headlamp Assembly - Right
309
BK
K166R
Multifunction LED Control Module - Right Headlamp
E2RF
Side Marker Lamp - Right Front
250
BK
J120
250
BK
250
BK
X110
1
4
150
BK
150
BK
X101
1
150
BK
X104
1
250
BK
X120
1
4
250
BK
250
BK
G101
G102

Left Front Turn Signal Lamps

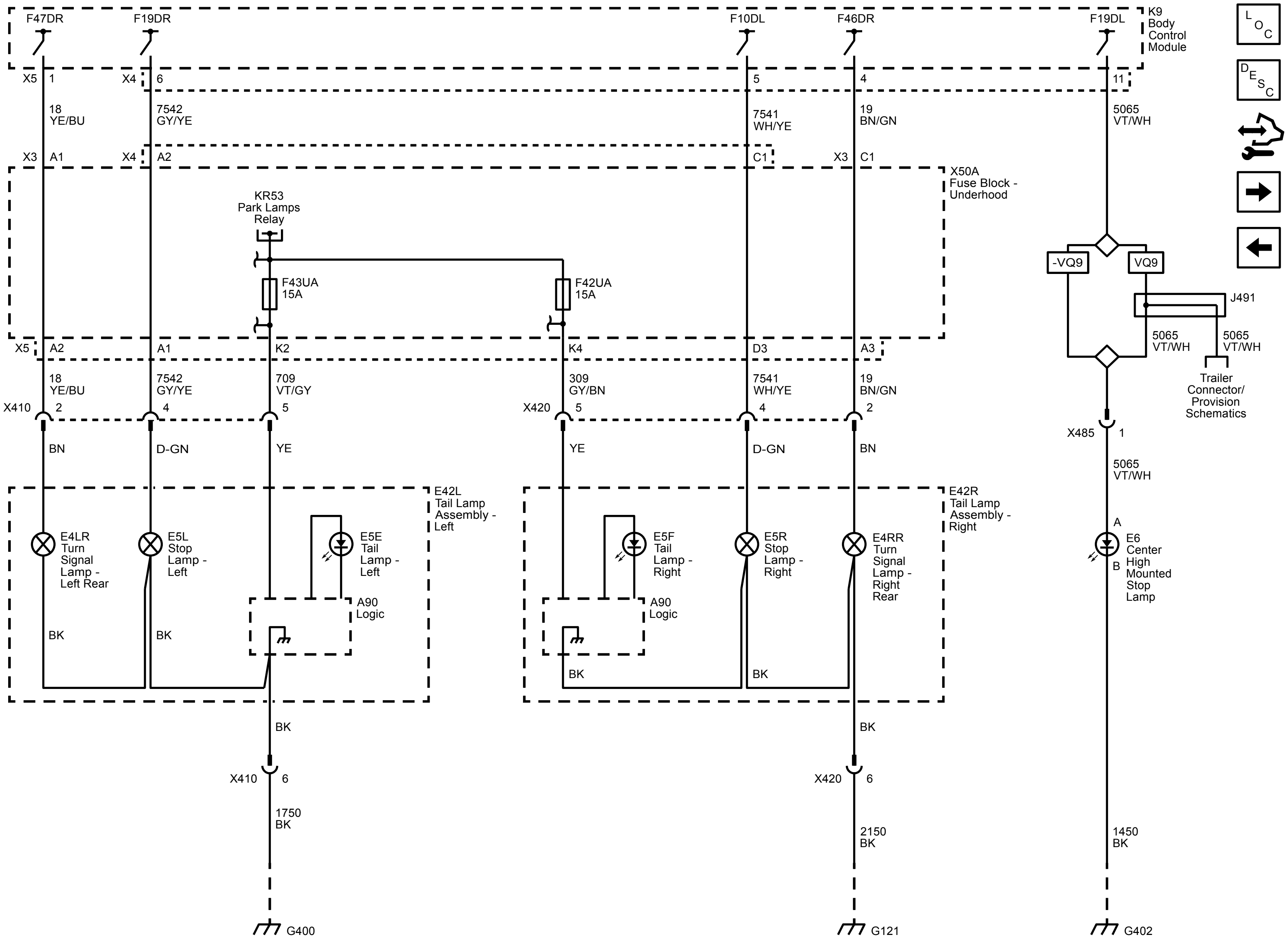


F10DL
F19DR
K9
Body
Control
Module
X5
2
X7
7
X6
21
1314
BU/WH
DL3/DR4
-DL3/DR4
Z75
J307
1314
BU/WH
1314
BU/WH
57
YE/GY
3204
BU/VT
X3
F1
L8
F2
X50A
Fuse Block -
Underhood
X1
F3
H1
M5
X500
41
1314
BU/WH
1314
BU/WH
57
YE/GY
3204
BU/VT
X510
13
1314
RD/BU
A9A
Outside
Rearview
Mirror -
Driver
Z75
X100
21
2
DL3
DR4
X525
3
E17D
Outside
Rearview
Mirror
Glass -
Driver
1314
BU
1314
BU/WH
57
YE/GY
X88
Z88
Z88
X101
2
6
X110
5
5
8
E69L
Multifunction
Lamp
Assembly -
Front Fascia
Left
E13LA
Headlamp
Assembly -
Left
X4
1
E4Y
Turn Signal
Repeater Lamp -
Left
E4Y
Turn
Signal
Repeater
Lamp -
Left
1314
BK
1
E4LF
Turn
Signal
Lamp -
Left Front
2
57
BK
K167L
Multifunction LED
Control Module -
Front Fascia Left
1314
RD
1314
RD
3204
YE
E4LF
Turn
Signal
Lamp -
Left Front
K166L
Multifunction
LED Control
Module - Left
Headlamp
X4
2
1150
BK/RD
1150
BK
X525
2
1150
BK/RD
150
BK
150
BK
J118
E4A
Cornering
Lamp -
Left
150
BK
150
BK
J110
E4LF
Turn
Signal
Lamp -
Left Front
J517
150
BK
150
BK
150
BK
1150
BK/WH
X101
1
X110
1
4
X510
5
1150
BK
150
BK
150
BK
150
BK
G311
G101
L O C
D E S C

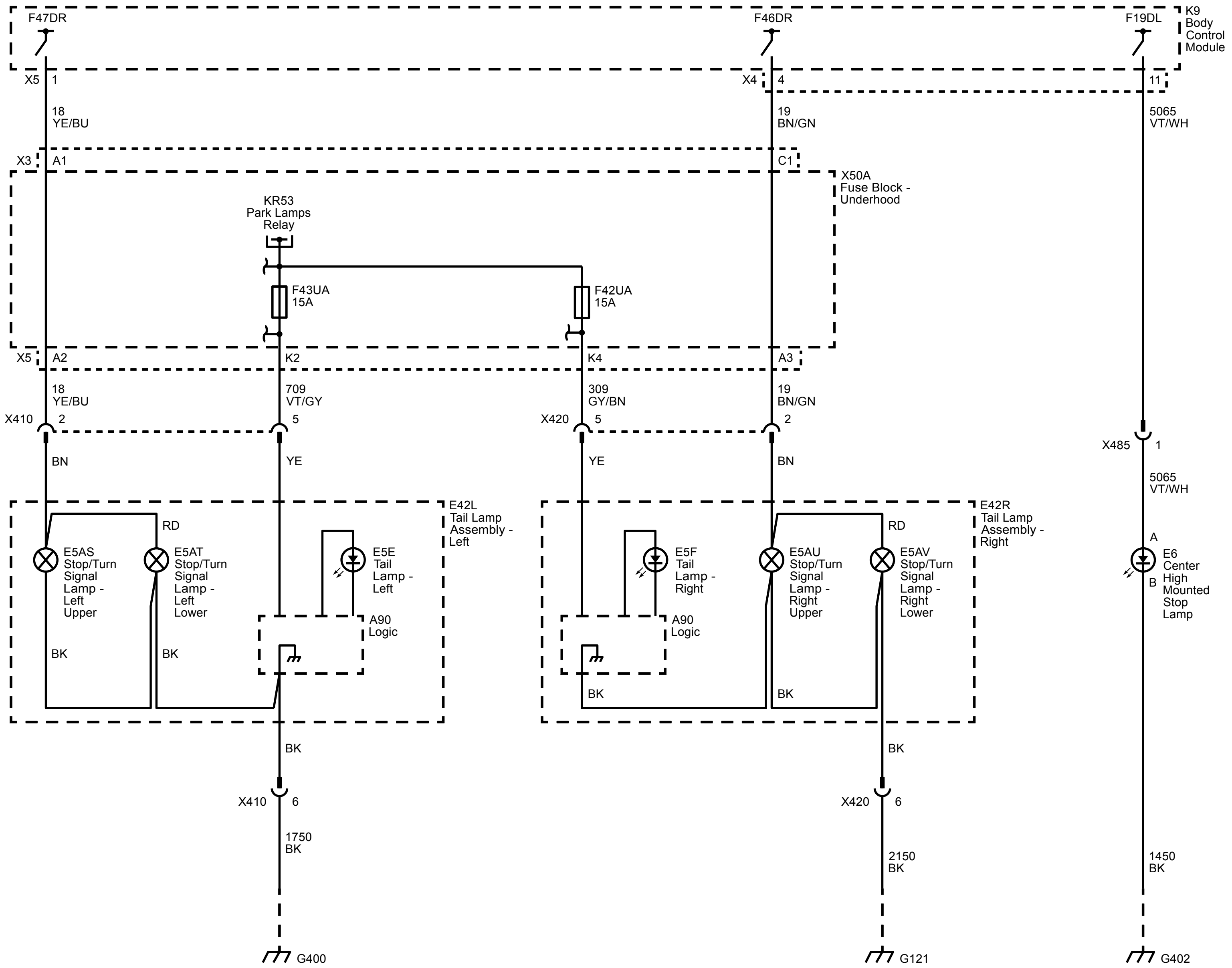
Right Front Turn Signal Lamps


F19DR
F46DR
K9
Body
Control
Module
X4
3
X6
7
6
1315
GN/VT
DL3/DR4
-DL3/DR4
Z75
J367
1315
GN/VT
1315
GN/VT
58
YE/WH
3203
WH/BU
X3
D1
M3
D2
X50A
Fuse Block -
Underhood
X1
D3
J1
M4
X600
41
1315
GN/VT
1315
GN/VT
58
YE/WH
3203
WH/BU
X610
13
1315
RD/BU
A9B
Outside
Rearview
Mirror -
Passenger
Z75
DL3
DR4
X100
23
3
X625
2
1315
GN/VT
58
YE/WH
X88
Z88
Z88
1315
BU
E17P
Outside Rearview
Mirror Glass -
Passenger
X104
2
6
X120
5
5
8
X4
1
1315
BK
58
BK
E69R
Multifunction
Lamp
Assembly -
Front Fascia
Right
1315
RD
1315
RD
3203
YE
E13RA
Headlamp
Assembly -
Right
E4Z
Turn Signal
Repeater Lamp -
Right
E4Z
Turn
Signal
Repeater
Lamp -
Right
1
E4RF
Turn
Signal
Lamp -
Right
Front
2
K167R
Multifunction LED
Control Module -
Front Fascia Right
E4RF
Turn
Signal
Lamp -
Right
Front
K166R
Multifunction
LED Control
Module - Right
Headlamp
X4
2
1250
BK/RD
1250
BK
250
BK
250
BK
E4B
Cornering
Lamp -
Right
250
BK
250
BK
J120
E4RF
Turn
Signal
Lamp -
Right
Front
X625
1
1250
BK/RD
J617
J128
250
BK
250
BK
250
BK
1250
BK/WH
X104
1
X120
1
4
X610
5
1250
BK
250
BK
250
BK
250
BK
G312
G102

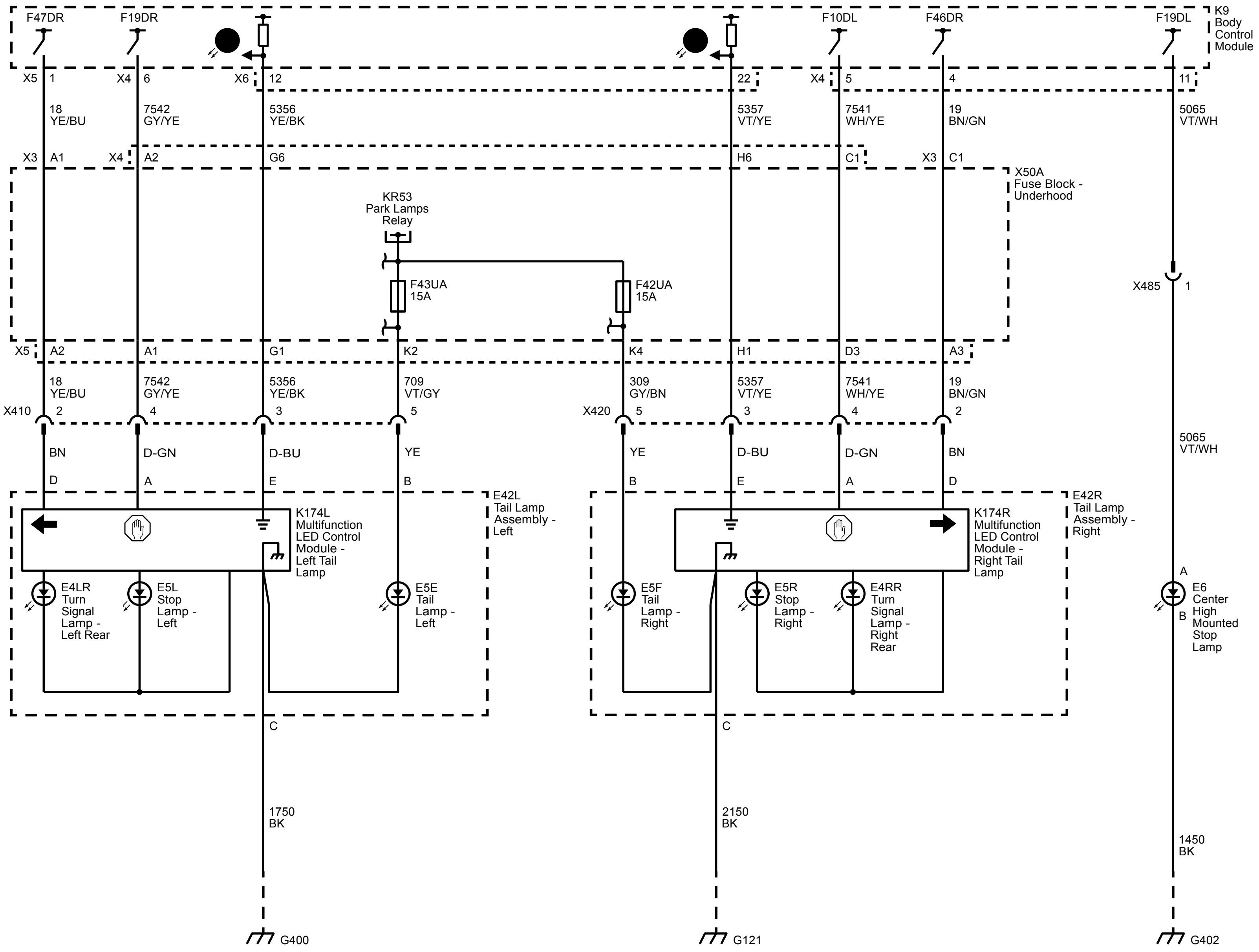
CHMSL and Tail Lamps (X88 with T89)


F47DR
F19DR
F10DL
F46DR
F19DL
K9
Body
Control
Module
X5 1
X4 6
5
4
11
18
YE/BU
7542
GY/YE
7541
WH/YE
19
BN/GN
5065
VT/WH
X3 A1
X4 A2
C1
X3 C1
X50A
Fuse Block -
Underhood
KR53
Park Lamps
Relay
F43UA
15A
F42UA
15A
-VQ9
VQ9
J491
5065
VT/WH
5065
VT/WH
Trailer
Connector/
Provision
Schematics
X5 A2
A1
K2
K4
D3
A3
18
YE/BU
7542
GY/YE
709
VT/GY
309
GY/BN
7541
WH/YE
19
BN/GN
X410 2
4
5
X420 5
4
2
X485 1
BN
D-GN
YE
YE
D-GN
BN
5065
VT/WH
E42L
Tail Lamp
Assembly -
Left
E42R
Tail Lamp
Assembly -
Right
E4LR
Turn
Signal
Lamp -
Left Rear
E5L
Stop
Lamp -
Left
E5E
Tail
Lamp -
Left
A90
Logic
E5F
Tail
Lamp -
Right
A90
Logic
E5R
Stop
Lamp -
Right
E4RR
Turn
Signal
Lamp -
Right
Rear
A
E6
Center
High
Mounted
Stop
Lamp
B
BK
BK
BK
BK
BK
BK
X410 6
X420 6
1750
BK
2150
BK
1450
BK
G400
G121
G402
L O C
D E S C

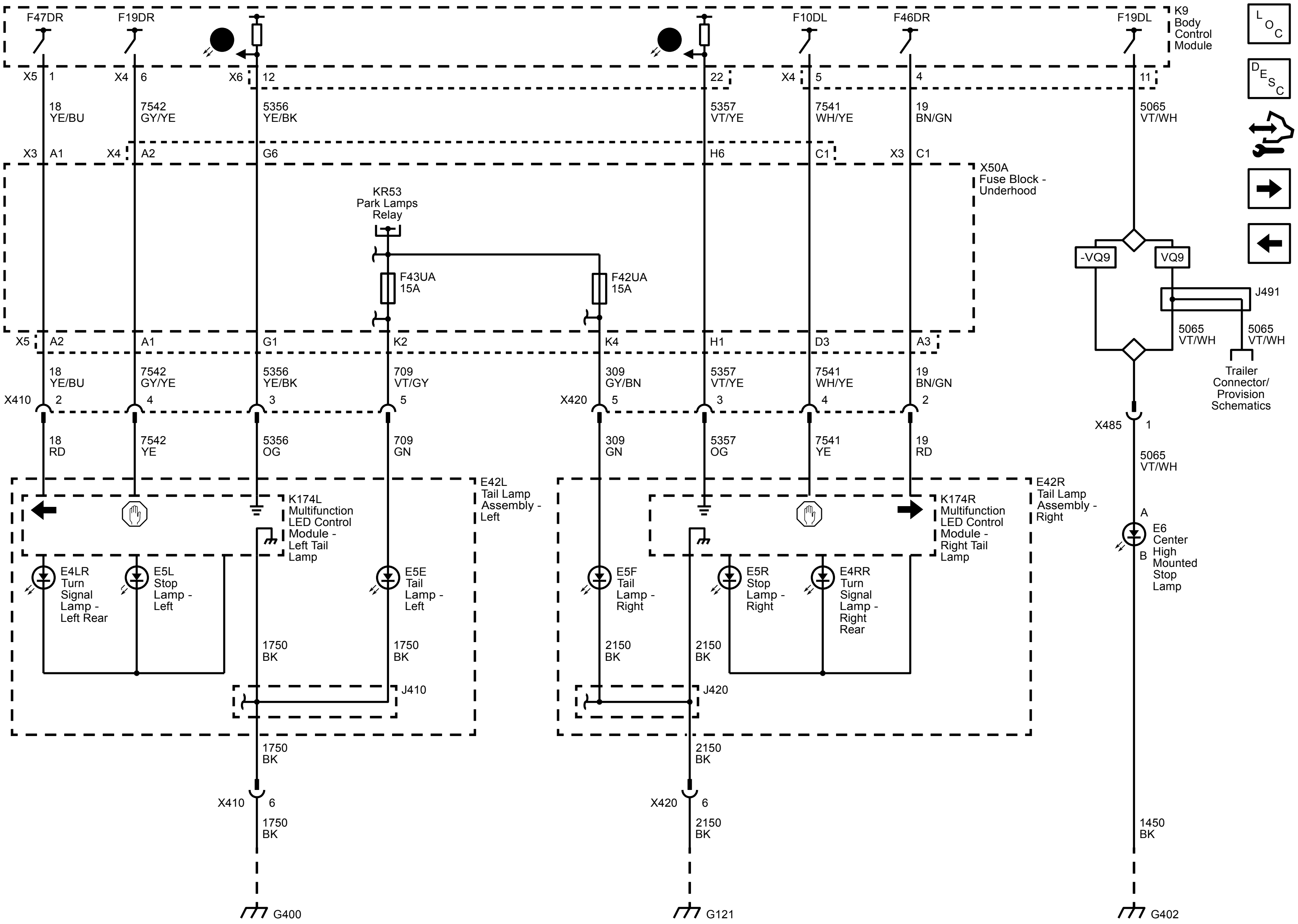
CHMSL and Tail Lamps (X88 without T89)


F47DR
F46DR
F19DL
K9
Body
Control
Module
X5
1
X4
4
11
18
YE/BU
19
BN/GN
5065
VT/WH
X3
A1
C1
X50A
Fuse Block -
Underhood
KR53
Park Lamps
Relay
F43UA
15A
F42UA
15A
X5
A2
K2
K4
A3
18
YE/BU
709
VT/GY
309
GY/BN
19
BN/GN
X410
2
5
X420
5
2
X485
1
BN
YE
YE
BN
5065
VT/WH
E42L
Tail Lamp
Assembly -
Left
RD
E5AS
Stop/Turn
Signal
Lamp -
Left
Upper
E5AT
Stop/Turn
Signal
Lamp -
Left
Lower
E5E
Tail
Lamp -
Left
A90
Logic
BK
BK
E42R
Tail Lamp
Assembly -
Right
E5F
Tail
Lamp -
Right
A90
Logic
E5AU
Stop/Turn
Signal
Lamp -
Right
Upper
RD
E5AV
Stop/Turn
Signal
Lamp -
Right
Lower
BK
BK
A
E6
Center
High
Mounted
Stop
Lamp
B
BK
BK
X410
6
X420
6
1750
BK
2150
BK
1450
BK
G400
G121
G402

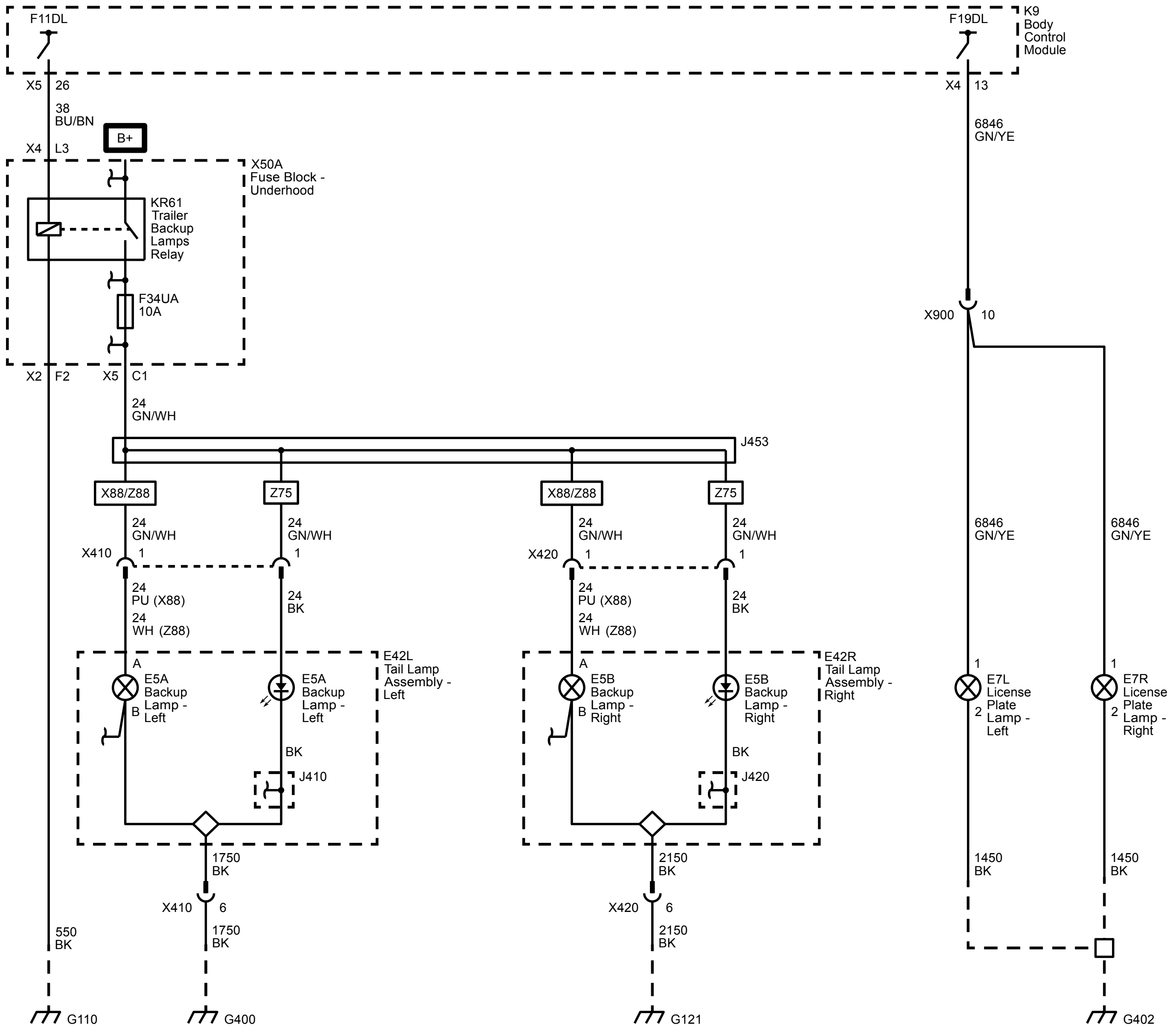
CHMSL and Tail Lamps (Z88)


F47DR
F19DR
F10DL
F46DR
F19DL
K9 Body Control Module
X5 1
X4 6
X6 12
22
X4 5
4
11
18 YE/BU
7542 GY/YE
5356 YE/BK
5357 VT/YE
7541 WH/YE
19 BN/GN
5065 VT/WH
X3 A1
X4 A2
G6
H6
C1
X3 C1
X50A Fuse Block - Underhood
KR53 Park Lamps Relay
F43UA 15A
F42UA 15A
X485 1
X5 A2
A1
G1
K2
K4
H1
D3
A3
18 YE/BU
7542 GY/YE
5356 YE/BK
709 VT/GY
309 GY/BN
5357 VT/YE
7541 WH/YE
19 BN/GN
X410 2
4
3
5
X420 5
3
4
2
5065 VT/WH
BN
D-GN
D-BU
YE
YE
D-BU
D-GN
BN
D
A
E
B
B
E
A
D
E42L Tail Lamp Assembly - Left
K174L Multifunction LED Control Module - Left Tail Lamp
E4LR Turn Signal Lamp - Left Rear
E5L Stop Lamp - Left
E5E Tail Lamp - Left
E42R Tail Lamp Assembly - Right
K174R Multifunction LED Control Module - Right Tail Lamp
E5F Tail Lamp - Right
E5R Stop Lamp - Right
E4RR Turn Signal Lamp - Right Rear
A
E6 Center High Mounted Stop Lamp
B
C
C
1750 BK
2150 BK
1450 BK
G400
G121
G402

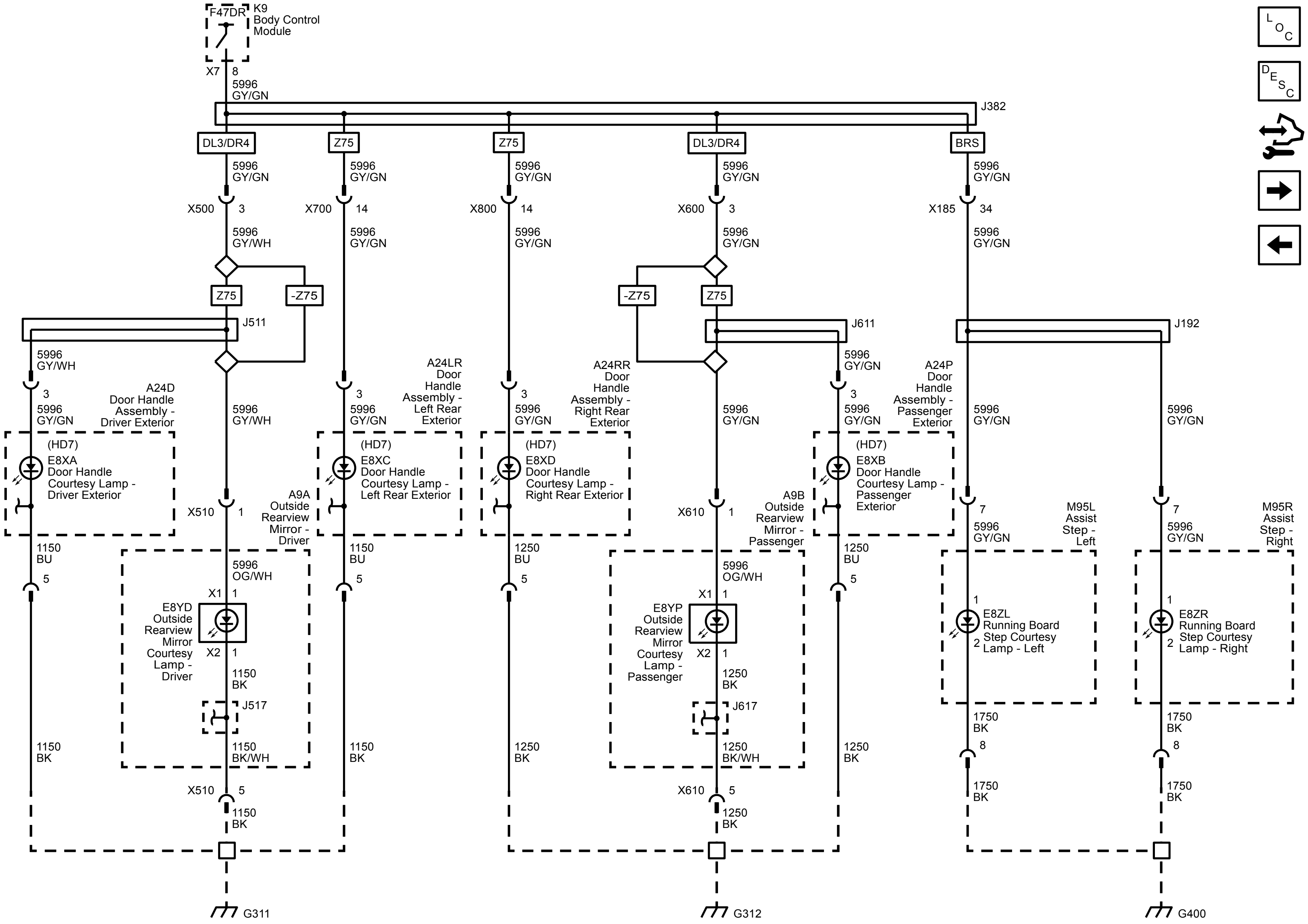
CHMSL and Tail Lamps (Z75)


F47DR
F19DR
F10DL
F46DR
F19DL
K9 Body Control Module
X5 1
X4 6
X6 12
22
X4 5
4
11
18 YE/BU
7542 GY/YE
5356 YE/BK
5357 VT/YE
7541 WH/YE
19 BN/GN
5065 VT/WH
X3 A1
X4 A2
G6
H6
C1
X3 C1
X50A Fuse Block - Underhood
KR53 Park Lamps Relay
F43UA 15A
F42UA 15A
-VQ9
VQ9
J491
5065 VT/WH
5065 VT/WH
Trailer Connector/ Provision Schematics
X5 A2
A1
G1
K2
K4
H1
D3
A3
18 YE/BU
7542 GY/YE
5356 YE/BK
709 VT/GY
309 GY/BN
5357 VT/YE
7541 WH/YE
19 BN/GN
X410 2
4
3
5
X420 5
3
4
2
X485 1
18 RD
7542 YE
5356 OG
709 GN
309 GN
5357 OG
7541 YE
19 RD
5065 VT/WH
E42L Tail Lamp Assembly - Left
K174L Multifunction LED Control Module - Left Tail Lamp
E42R Tail Lamp Assembly - Right
K174R Multifunction LED Control Module - Right Tail Lamp
A
E6 Center High Mounted Stop Lamp
B
E4LR Turn Signal Lamp - Left Rear
E5L Stop Lamp - Left
E5E Tail Lamp - Left
E5F Tail Lamp - Right
E5R Stop Lamp - Right
E4RR Turn Signal Lamp - Right Rear
1750 BK
1750 BK
2150 BK
2150 BK
J410
J420
1750 BK
2150 BK
X410 6
X420 6
1750 BK
2150 BK
1450 BK
G400
G121
G402
L O C
D E S C

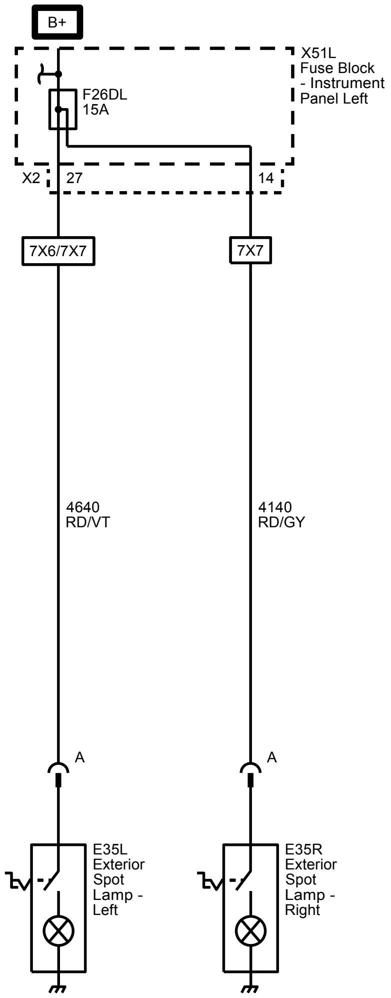
Backup and License Plate Lamps


F11DL
F19DL
K9
Body
Control
Module
X5 26
38
BU/BN
B+
X4 L3
X50A
Fuse Block -
Underhood
KR61
Trailer
Backup
Lamps
Relay
F34UA
10A
X2 F2
X5 C1
24
GN/WH
J453
X88/Z88
Z75
X88/Z88
Z75
24
GN/WH
24
GN/WH
24
GN/WH
24
GN/WH
X410 1
1
X420 1
1
24
PU (X88)
24
WH (Z88)
24
BK
24
PU (X88)
24
WH (Z88)
24
BK
E42L
Tail Lamp
Assembly -
Left
A
E5A
Backup
Lamp -
Left
B
E5A
Backup
Lamp -
Left
BK
J410
E42R
Tail Lamp
Assembly -
Right
A
E5B
Backup
Lamp -
Right
B
E5B
Backup
Lamp -
Right
BK
J420
1750
BK
X410 6
1750
BK
2150
BK
X420 6
2150
BK
550
BK
G110
G400
G121
X4 13
6846
GN/YE
X900 10
6846
GN/YE
6846
GN/YE
1
E7L
License
Plate
2
Lamp -
Left
1
E7R
License
Plate
2
Lamp -
Right
1450
BK
1450
BK
G402

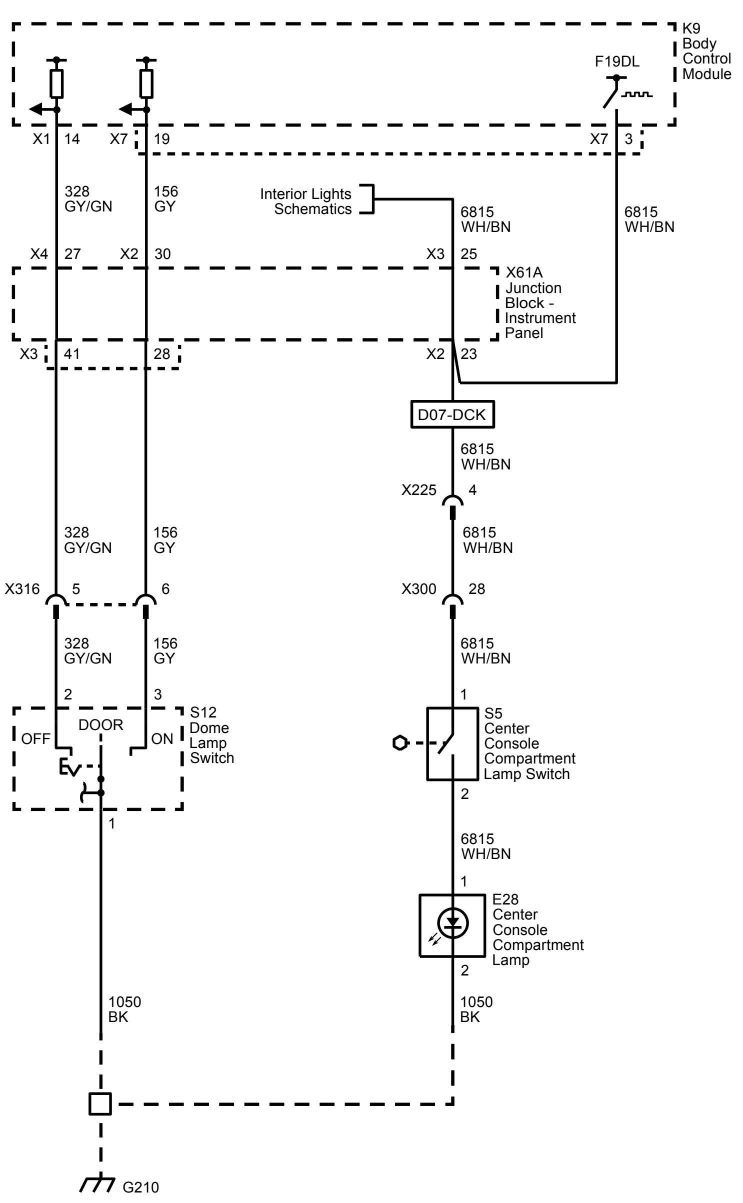
Courtesy Lamps


F47DR
K9
Body Control
Module
X7
8
5996
GY/GN
J382
DL3/DR4
Z75
Z75
DL3/DR4
BRS
5996
GY/GN
X500
3
X700
14
X800
14
X600
3
X185
34
5996
GY/WH
Z75
-Z75
-Z75
Z75
J511
J611
J192
5996
GY/WH
3
5996
GY/GN
A24D
Door Handle
Assembly -
Driver Exterior
(HD7)
E8XA
Door Handle
Courtesy Lamp -
Driver Exterior
A24LR
Door
Handle
Assembly -
Left Rear
Exterior
E8XC
Door Handle
Courtesy Lamp -
Left Rear Exterior
A24RR
Door
Handle
Assembly -
Right Rear
Exterior
E8XD
Door Handle
Courtesy Lamp -
Right Rear Exterior
A24P
Door
Handle
Assembly -
Passenger
Exterior
E8XB
Door Handle
Courtesy Lamp -
Passenger
Exterior
A9A
Outside
Rearview
Mirror -
Driver
X510
1
5996
OG/WH
X1
1
E8YD
Outside
Rearview
Mirror
Courtesy
Lamp -
Driver
X2
1
1150
BK
J517
1150
BK/WH
A9B
Outside
Rearview
Mirror -
Passenger
X610
1
E8YP
Outside
Rearview
Mirror
Courtesy
Lamp -
Passenger
1250
BK
J617
1250
BK/WH
1150
BU
5
1250
BU
M95L
Assist
Step -
Left
M95R
Assist
Step -
Right
7
E8ZL
Running Board
Step Courtesy
Lamp - Left
E8ZR
Running Board
Step Courtesy
Lamp - Right
2
1750
BK
8
X510
5
X610
5
G311
G312
G400

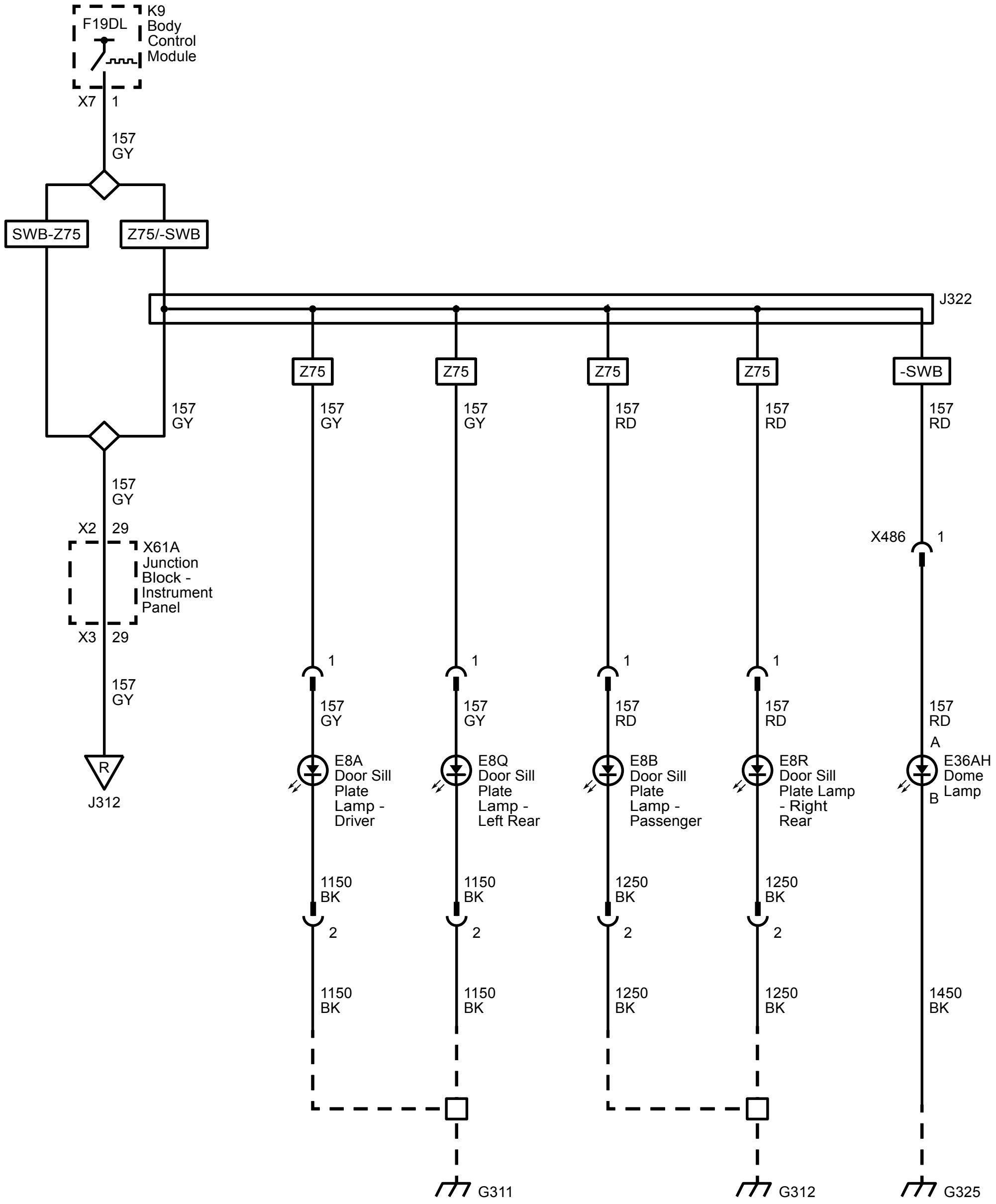
Spot Light (7X6 and 7X7)


B+
X51L
Fuse Block
- Instrument
Panel Left
F26DL
15A
X2
27
14
7X6/7X7
7X7
4640
RD/VT
4140
RD/GY
A
A
E35L
Exterior
Spot
Lamp -
Left
E35R
Exterior
Spot
Lamp -
Right

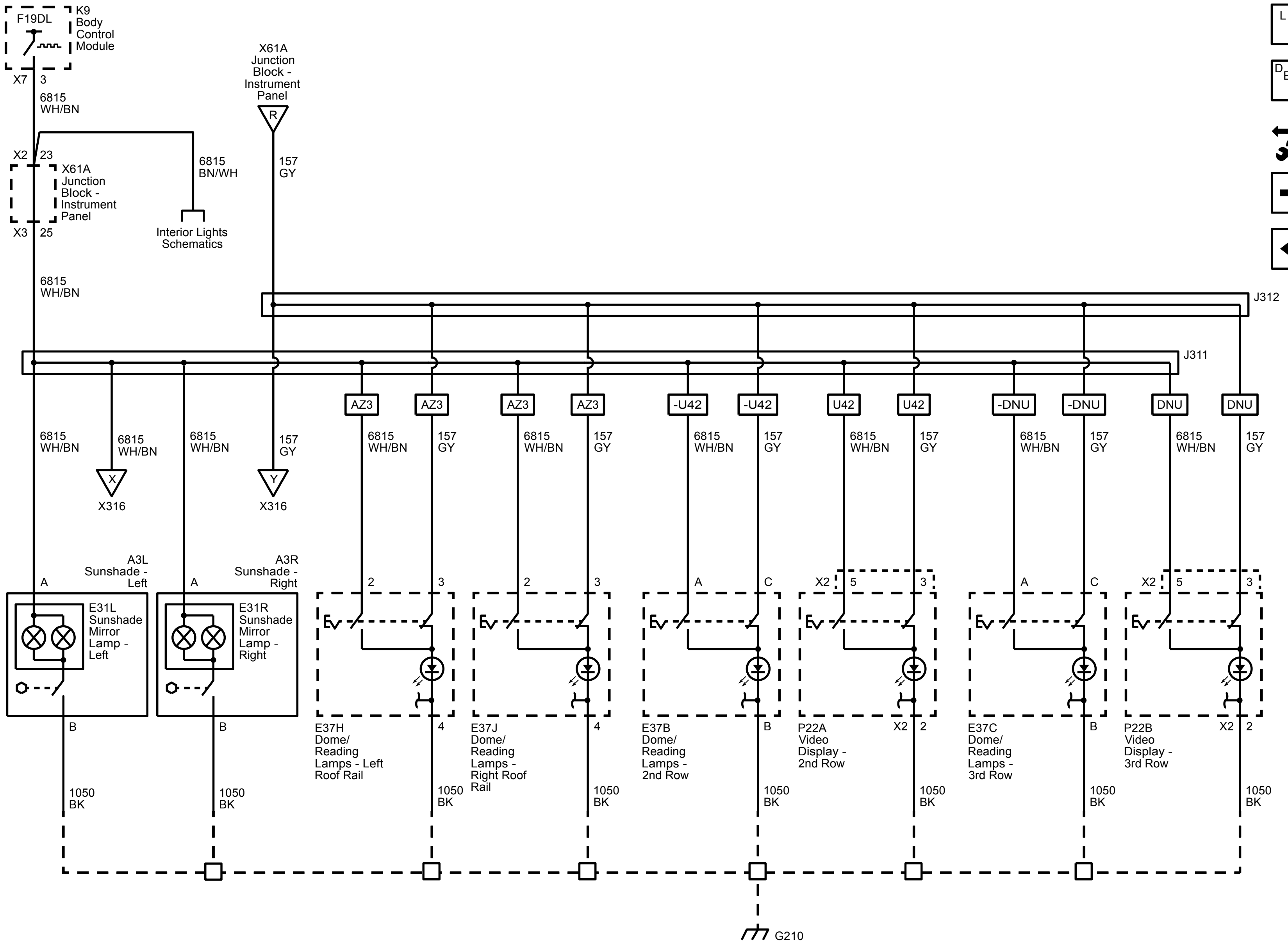
Controls and Center Console Compartment Lamp


K9
Body
Control
Module
F19DL
X1 14
X7 19
X7 3
328
GY/GN
156
GY
Interior Lights
Schematics
6815
WH/BN
6815
WH/BN
X4 27
X2 30
X3 25
X61A
Junction
Block -
Instrument
Panel
X3 41
28
X2 23
D07-DCK
6815
WH/BN
X225 4
6815
WH/BN
328
GY/GN
156
GY
X316 5
6
X300 28
328
GY/GN
156
GY
6815
WH/BN
2
3
S12
Dome
Lamp
Switch
DOOR
OFF
ON
1
1
S5
Center
Console
Compartment
Lamp Switch
2
6815
WH/BN
1
E28
Center
Console
Compartment
Lamp
2
1050
BK
1050
BK
G210

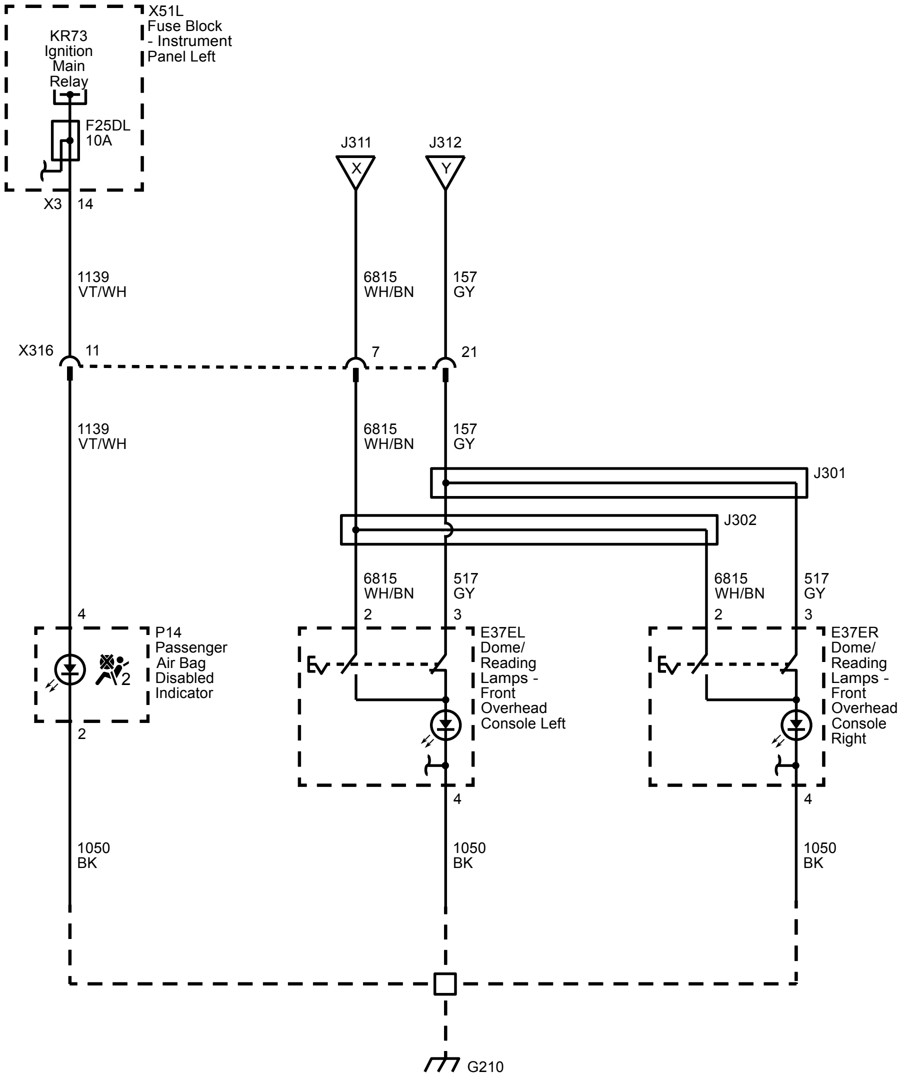
Door Sill and D-Pillar Dome Lamps


K9 Body Control Module
F19DL
X7 1
157 GY
SWB-Z75
Z75/-SWB
J322
Z75
Z75
Z75
Z75
-SWB
157 GY
157 GY
157 GY
157 RD
157 RD
157 RD
157 GY
X2 29
X61A Junction Block - Instrument Panel
X3 29
157 GY
R
J312
X486 1
1
1
1
1
157 GY
157 GY
157 RD
157 RD
157 RD
A
E8A Door Sill Plate Lamp - Driver
E8Q Door Sill Plate Lamp - Left Rear
E8B Door Sill Plate Lamp - Passenger
E8R Door Sill Plate Lamp - Right Rear
E36AH Dome Lamp
B
1150 BK
1150 BK
1250 BK
1250 BK
2
2
2
2
1150 BK
1150 BK
1250 BK
1250 BK
1450 BK
G311
G312
G325

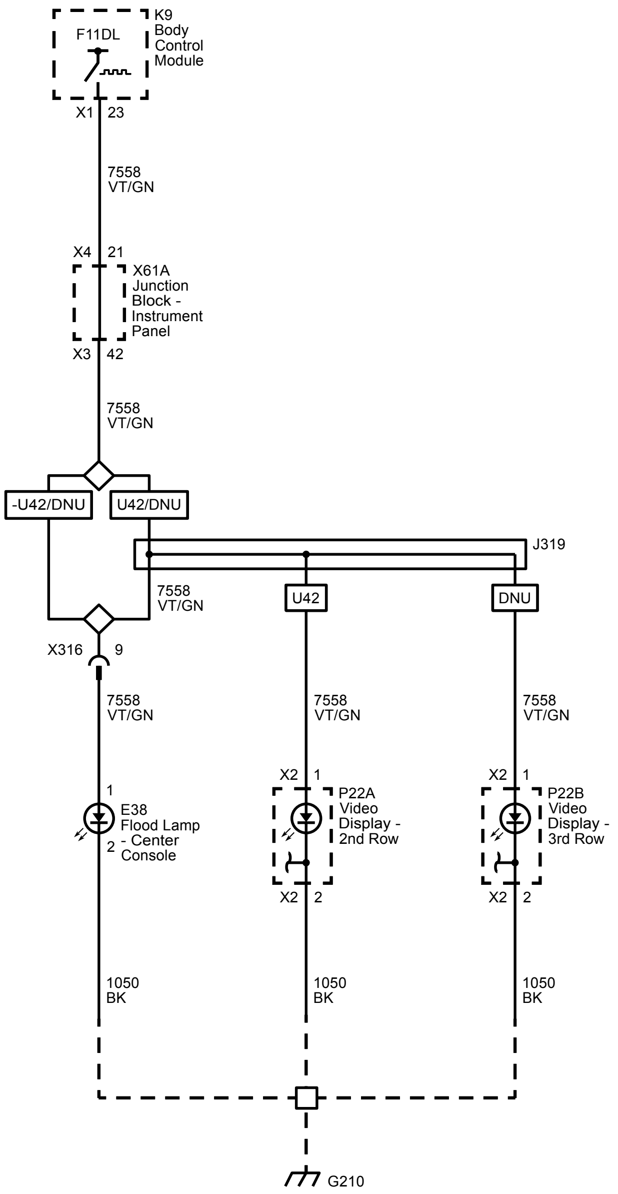
Overhead Lamps (1 of 2)


F19DL
K9
Body
Control
Module
X7
3
6815
WH/BN
X2
23
X61A
Junction
Block -
Instrument
Panel
X3
25
6815
BN/WH
Interior Lights
Schematics
X61A
Junction
Block -
Instrument
Panel
R
157
GY
6815
WH/BN
J312
J311
AZ3
AZ3
AZ3
AZ3
-U42
-U42
U42
U42
-DNU
-DNU
DNU
DNU
6815
WH/BN
X
X316
157
GY
Y
X316
A3L
Sunshade -
Left
A
E31L
Sunshade
Mirror
Lamp -
Left
B
1050
BK
A3R
Sunshade -
Right
A
E31R
Sunshade
Mirror
Lamp -
Right
B
1050
BK
2
3
4
E37H
Dome/
Reading
Lamps - Left
Roof Rail
1050
BK
2
3
4
E37J
Dome/
Reading
Lamps -
Right Roof
Rail
1050
BK
A
C
B
E37B
Dome/
Reading
Lamps -
2nd Row
1050
BK
X2
5
3
X2
2
P22A
Video
Display -
2nd Row
1050
BK
A
C
B
E37C
Dome/
Reading
Lamps -
3rd Row
1050
BK
X2
5
3
X2
2
P22B
Video
Display -
3rd Row
1050
BK
G210

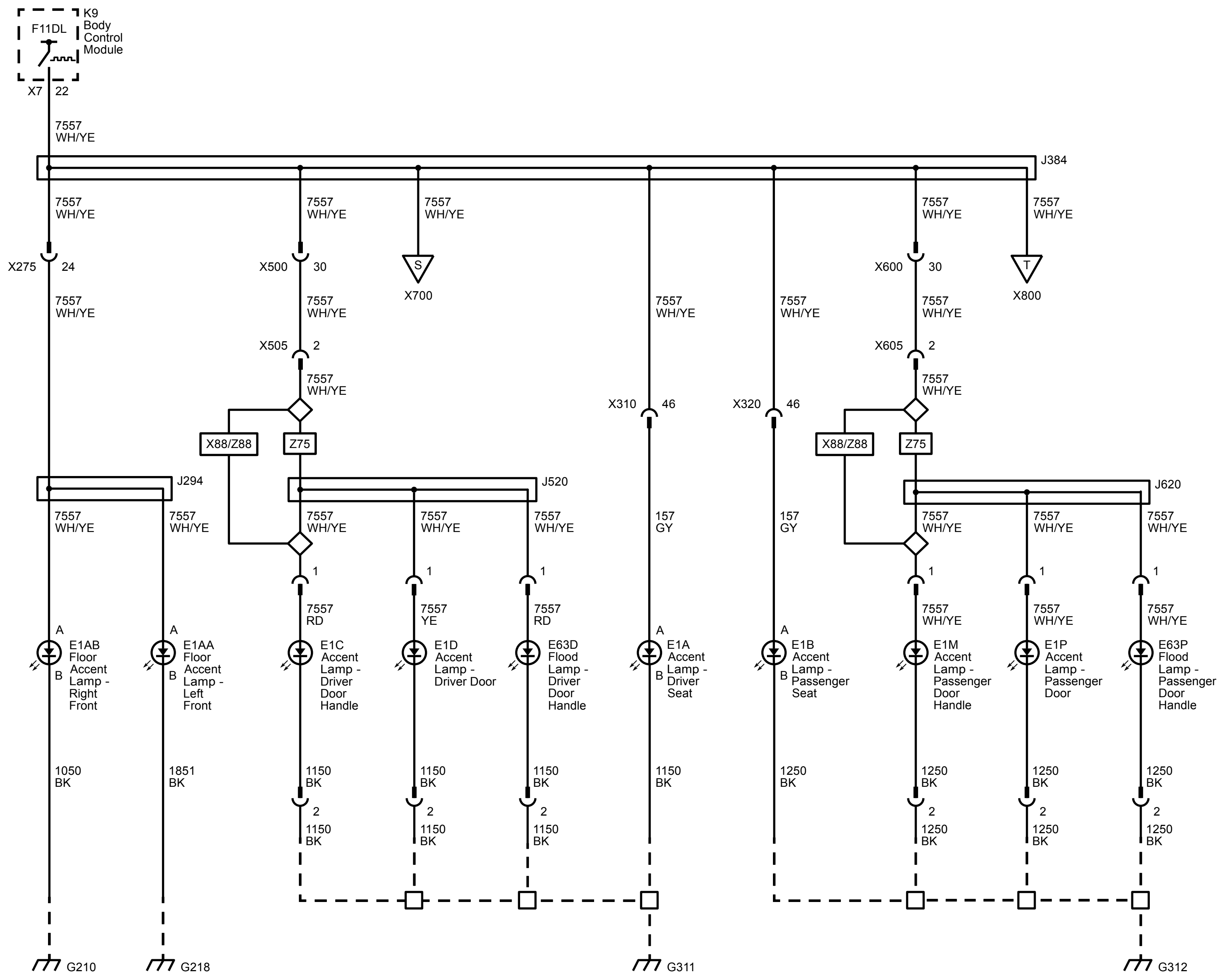
Overhead Lamps (2 of 2)


X51L
Fuse Block
- Instrument
Panel Left
KR73
Ignition
Main
Relay
F25DL
10A
X3
14
J311
X
J312
Y
1139
VT/WH
6815
WH/BN
157
GY
X316
11
7
21
1139
VT/WH
6815
WH/BN
157
GY
J301
J302
6815
WH/BN
517
GY
6815
WH/BN
517
GY
4
2
3
2
3
P14
Passenger
Air Bag
Disabled
Indicator
2
E37EL
Dome/
Reading
Lamps -
Front
Overhead
Console Left
E37ER
Dome/
Reading
Lamps -
Front
Overhead
Console
Right
2
4
4
1050
BK
1050
BK
1050
BK
G210

Accent and Flood Lamps - Overhead Console and Video Displays (U42 and DNU)

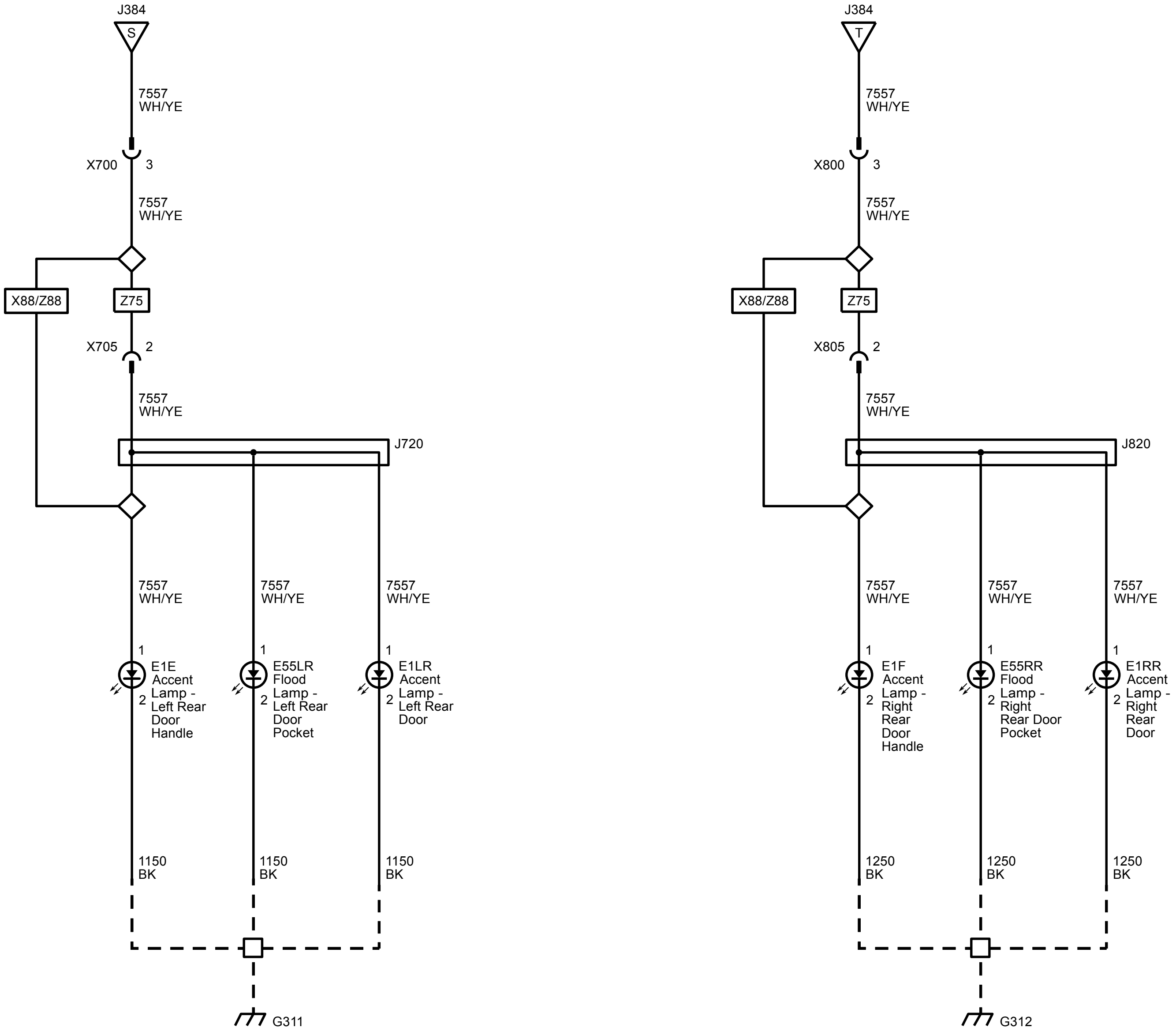

F11DL
K9
Body
Control
Module
X1
23
7558
VT/GN
X4
21
X61A
Junction
Block -
Instrument
Panel
X3
42
7558
VT/GN
-U42/DNU
U42/DNU
J319
7558
VT/GN
U42
DNU
X316
9
7558
VT/GN
7558
VT/GN
7558
VT/GN
X2
1
X2
1
1
E38
Flood Lamp
- Center
Console
2
P22A
Video
Display -
2nd Row
P22B
Video
Display -
3rd Row
X2
2
X2
2
1050
BK
1050
BK
1050
BK
G210

Accent and Flood Lamps - Seats and Front Doors



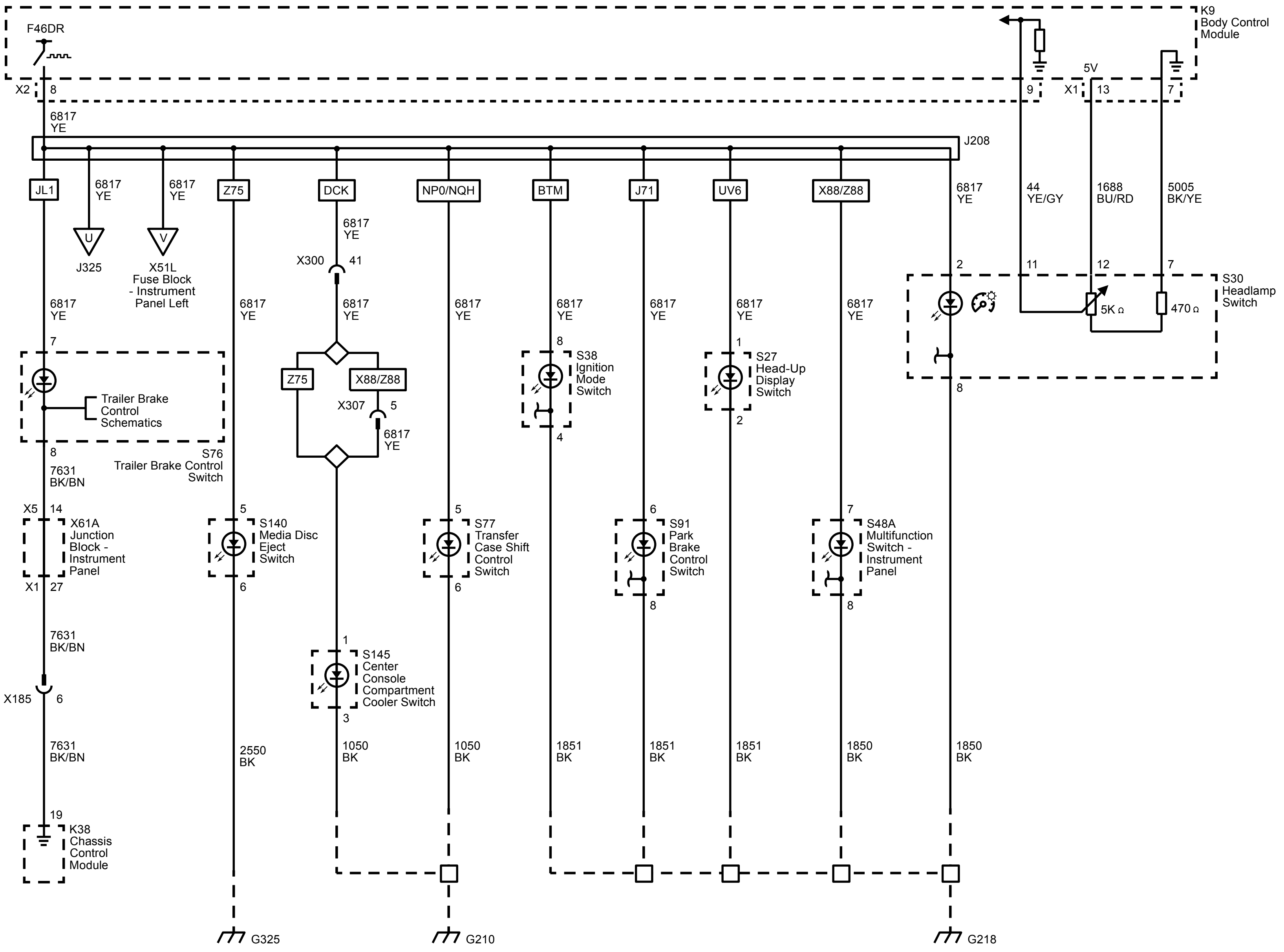
K9
Body
Control
Module
F11DL
X7
22
7557
WH/YE
J384
7557
WH/YE
7557
WH/YE
7557
WH/YE
7557
WH/YE
7557
WH/YE
X275
24
X500
30
S
X700
X600
30
T
X800
7557
WH/YE
7557
WH/YE
7557
WH/YE
7557
WH/YE
7557
WH/YE
X505
2
X605
2
7557
WH/YE
7557
WH/YE
X310
46
X320
46
X88/Z88
Z75
X88/Z88
Z75
J294
J520
J620
7557
WH/YE
7557
WH/YE
7557
WH/YE
7557
WH/YE
7557
WH/YE
157
GY
157
GY
7557
WH/YE
7557
WH/YE
7557
WH/YE
1
1
1
1
1
1
7557
RD
7557
YE
7557
RD
7557
WH/YE
7557
WH/YE
7557
WH/YE
A
B
E1AB
Floor
Accent
Lamp -
Right
Front
A
B
E1AA
Floor
Accent
Lamp -
Left
Front
E1C
Accent
Lamp -
Driver
Door
Handle
E1D
Accent
Lamp -
Driver Door
E63D
Flood
Lamp -
Driver
Door
Handle
A
B
E1A
Accent
Lamp -
Driver
Seat
A
B
E1B
Accent
Lamp -
Passenger
Seat
E1M
Accent
Lamp -
Passenger
Door
Handle
E1P
Accent
Lamp -
Passenger
Door
E63P
Flood
Lamp -
Passenger
Door
Handle
1050
BK
1851
BK
1150
BK
1150
BK
1150
BK
1150
BK
1250
BK
1250
BK
1250
BK
1250
BK
2
2
2
2
2
2
1150
BK
1150
BK
1150
BK
1250
BK
1250
BK
1250
BK
G210
G218
G311
G312

Accent and Flood Lamps - Rear Doors


J384
S
7557
WH/YE
X700
3
7557
WH/YE
X88/Z88
Z75
X705
2
7557
WH/YE
J720
7557
WH/YE
7557
WH/YE
7557
WH/YE
1
E1E
Accent
Lamp -
Left Rear
Door
Handle
2
1
E55LR
Flood
Lamp -
Left Rear
Door
Pocket
2
1
E1LR
Accent
Lamp -
Left Rear
Door
2
1150
BK
1150
BK
1150
BK
G311
J384
T
7557
WH/YE
X800
3
7557
WH/YE
X88/Z88
Z75
X805
2
7557
WH/YE
J820
7557
WH/YE
7557
WH/YE
7557
WH/YE
1
E1F
Accent
Lamp -
Right
Rear
Door
Handle
2
1
E55RR
Flood
Lamp -
Right
Rear Door
Pocket
2
1
E1RR
Accent
Lamp -
Right
Rear
Door
2
1250
BK
1250
BK
1250
BK
G312

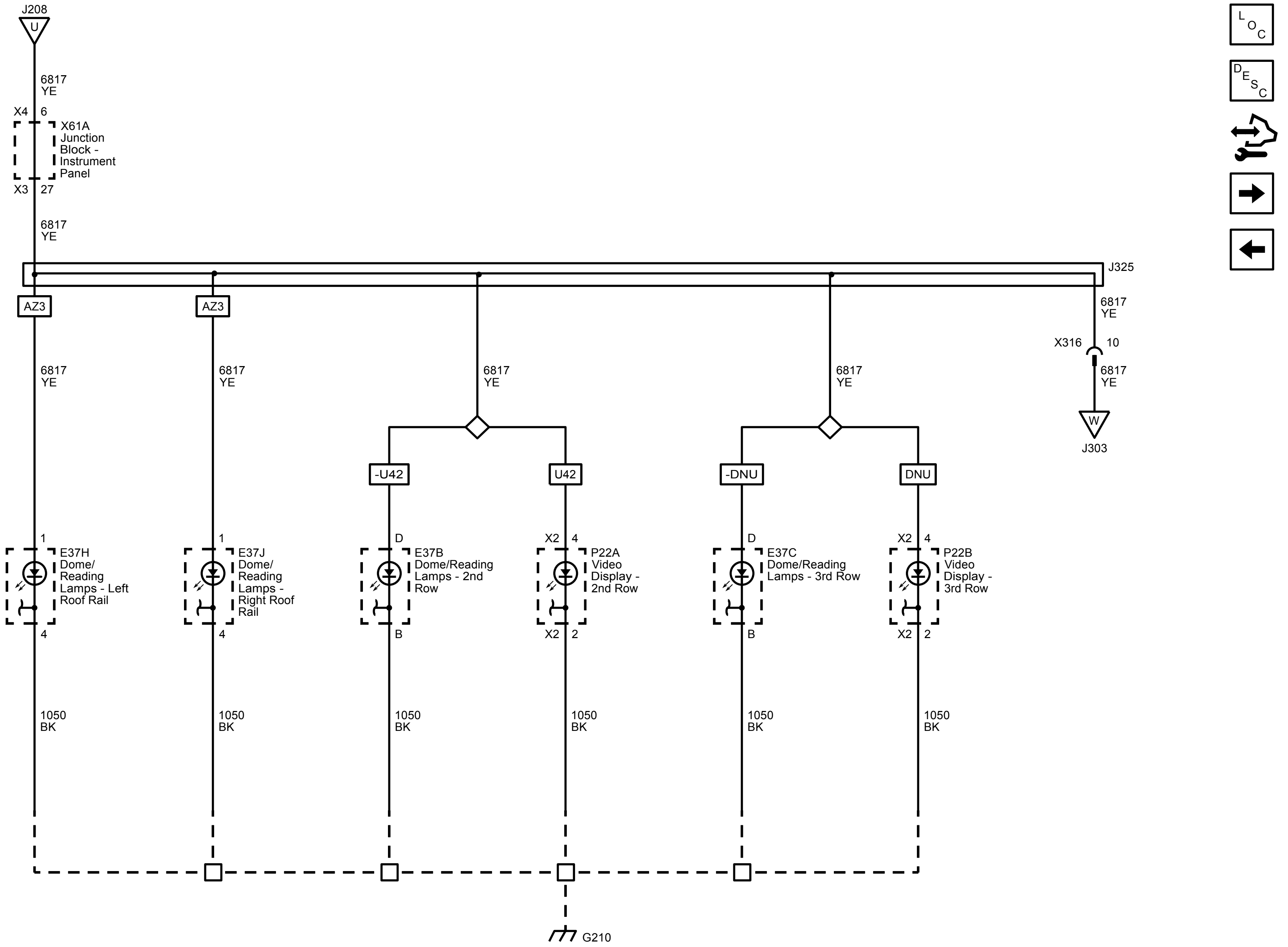
Interior Lights Dimming Schematics

Instrument Panel and Floor Console Dimming

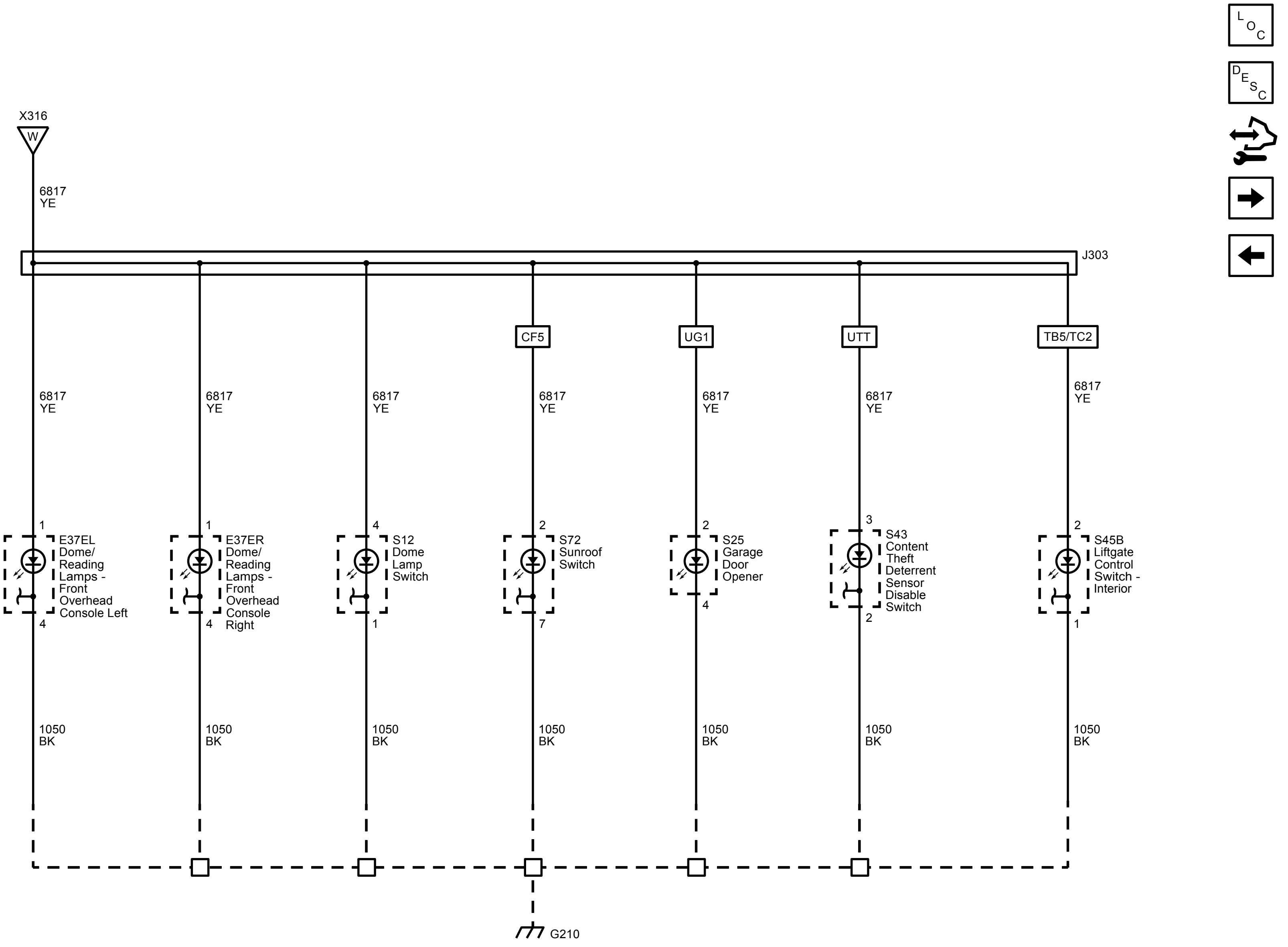


K9
Body Control
Module
F46DR
X2
8
9
X1
13
7
5V
6817
YE
J208
JL1
6817
YE
6817
YE
Z75
DCK
NP0/NQH
BTM
J71
UV6
X88/Z88
6817
YE
44
YE/GY
1688
BU/RD
5005
BK/YE
U
V
J325
X51L
Fuse Block
- Instrument
Panel Left
X300
41
6817
YE
2
11
12
7
S30
Headlamp
Switch
5K Ω
470 Ω
8
6817
YE
7
Trailer Brake
Control
Schematics
8
7631
BK/BN
S76
Trailer Brake Control
Switch
Z75
X88/Z88
X307
5
6817
YE
8
S38
Ignition
Mode
Switch
4
1
S27
Head-Up
Display
Switch
2
X5
14
X61A
Junction
Block -
Instrument
Panel
X1
27
5
S140
Media Disc
Eject
Switch
6
5
S77
Transfer
Case Shift
Control
Switch
6
6
S91
Park
Brake
Control
Switch
8
7
S48A
Multifunction
Switch -
Instrument
Panel
8
7631
BK/BN
X185
6
1
S145
Center
Console
Compartment
Cooler Switch
3
7631
BK/BN
2550
BK
1050
BK
1050
BK
1851
BK
1851
BK
1851
BK
1850
BK
1850
BK
19
K38
Chassis
Control
Module
G325
G210
G218

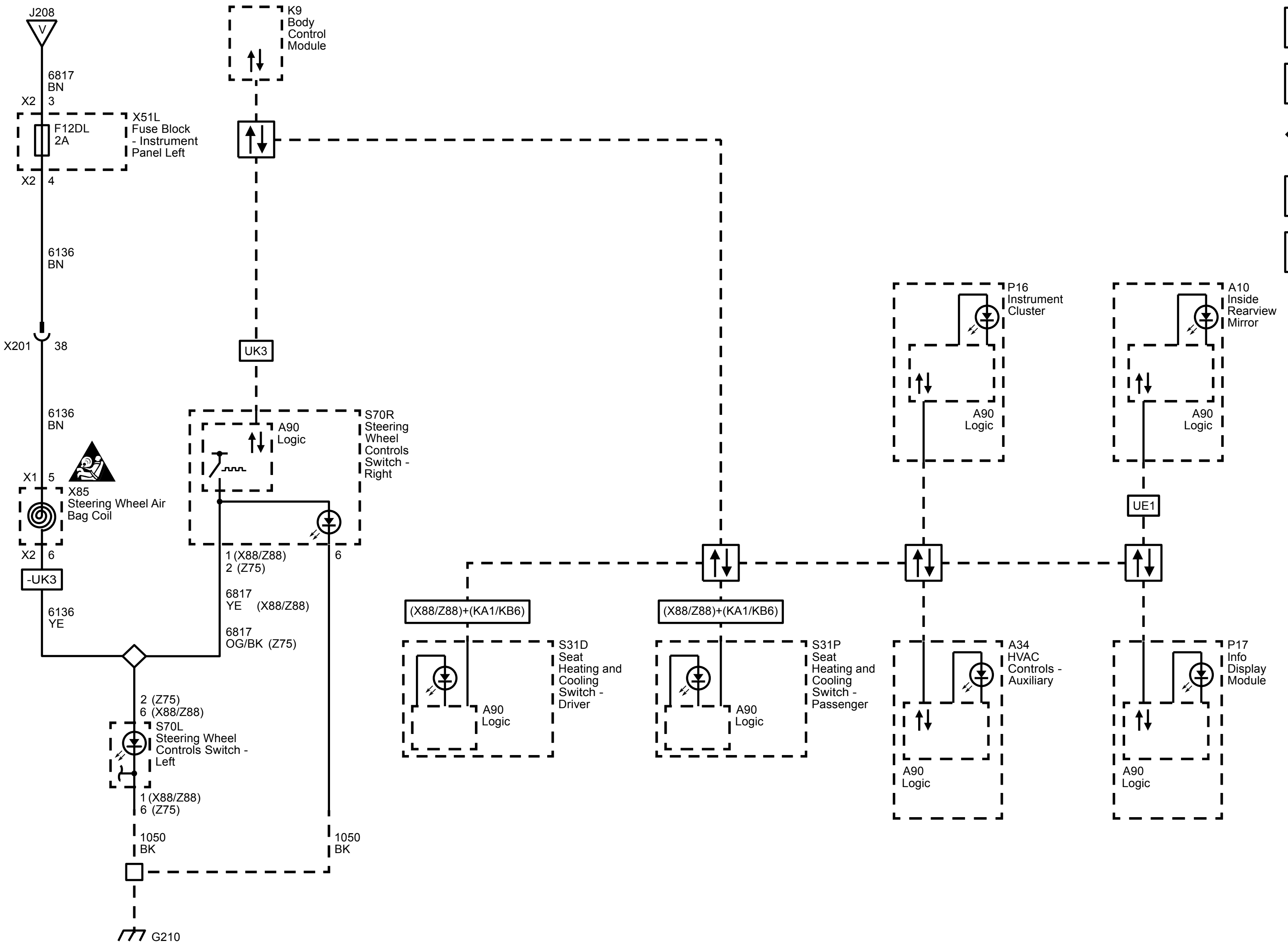
Headliner and Overhead Console Dimming (1 of 2)


J208
U
6817
YE
X4 6
X61A
Junction
Block -
Instrument
Panel
X3 27
6817
YE
J325
AZ3
AZ3
6817
YE
6817
YE
6817
YE
6817
YE
6817
YE
X316 10
6817
YE
W
J303
-U42
U42
-DNU
DNU
1
E37H
Dome/
Reading
Lamps - Left
Roof Rail
4
1
E37J
Dome/
Reading
Lamps -
Right Roof
Rail
4
D
E37B
Dome/Reading
Lamps - 2nd
Row
B
X2 4
P22A
Video
Display -
2nd Row
X2 2
D
E37C
Dome/Reading
Lamps - 3rd Row
B
X2 4
P22B
Video
Display -
3rd Row
X2 2
1050
BK
1050
BK
1050
BK
1050
BK
1050
BK
1050
BK
G210
LOC
DESC

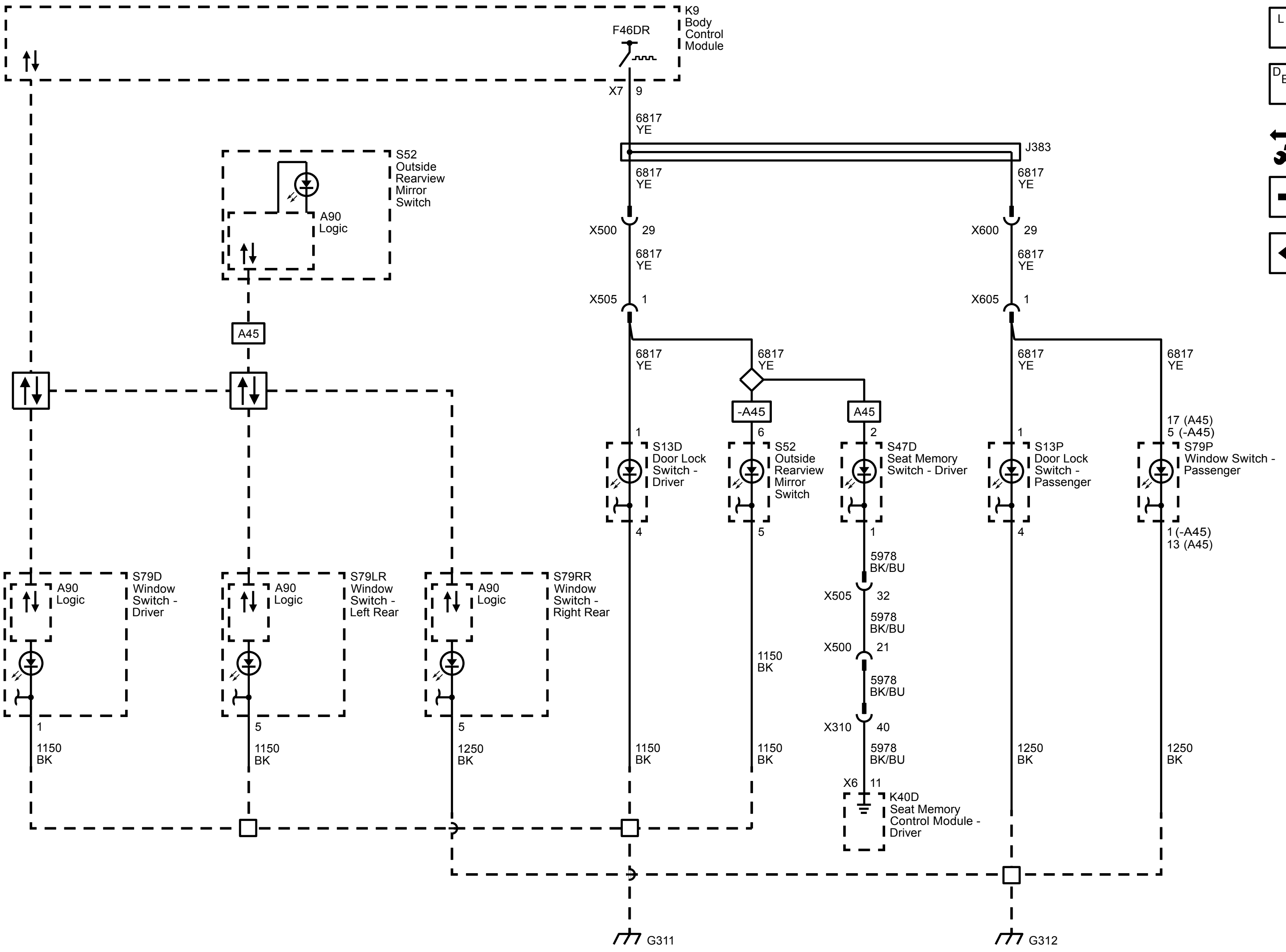
Headliner and Overhead Console Dimming (2 of 2)


X316
W
6817
YE
J303
CF5
UG1
UTT
TB5/TC2
6817
YE
1
E37EL
Dome/
Reading
Lamps -
Front
Overhead
Console Left
4
1
E37ER
Dome/
Reading
Lamps -
Front
Overhead
Console
Right
4
4
S12
Dome
Lamp
Switch
1
2
S72
Sunroof
Switch
7
2
S25
Garage
Door
Opener
4
3
S43
Content
Theft
Deterrent
Sensor
Disable
Switch
2
2
S45B
Liftgate
Control
Switch -
Interior
1
1050
BK
G210

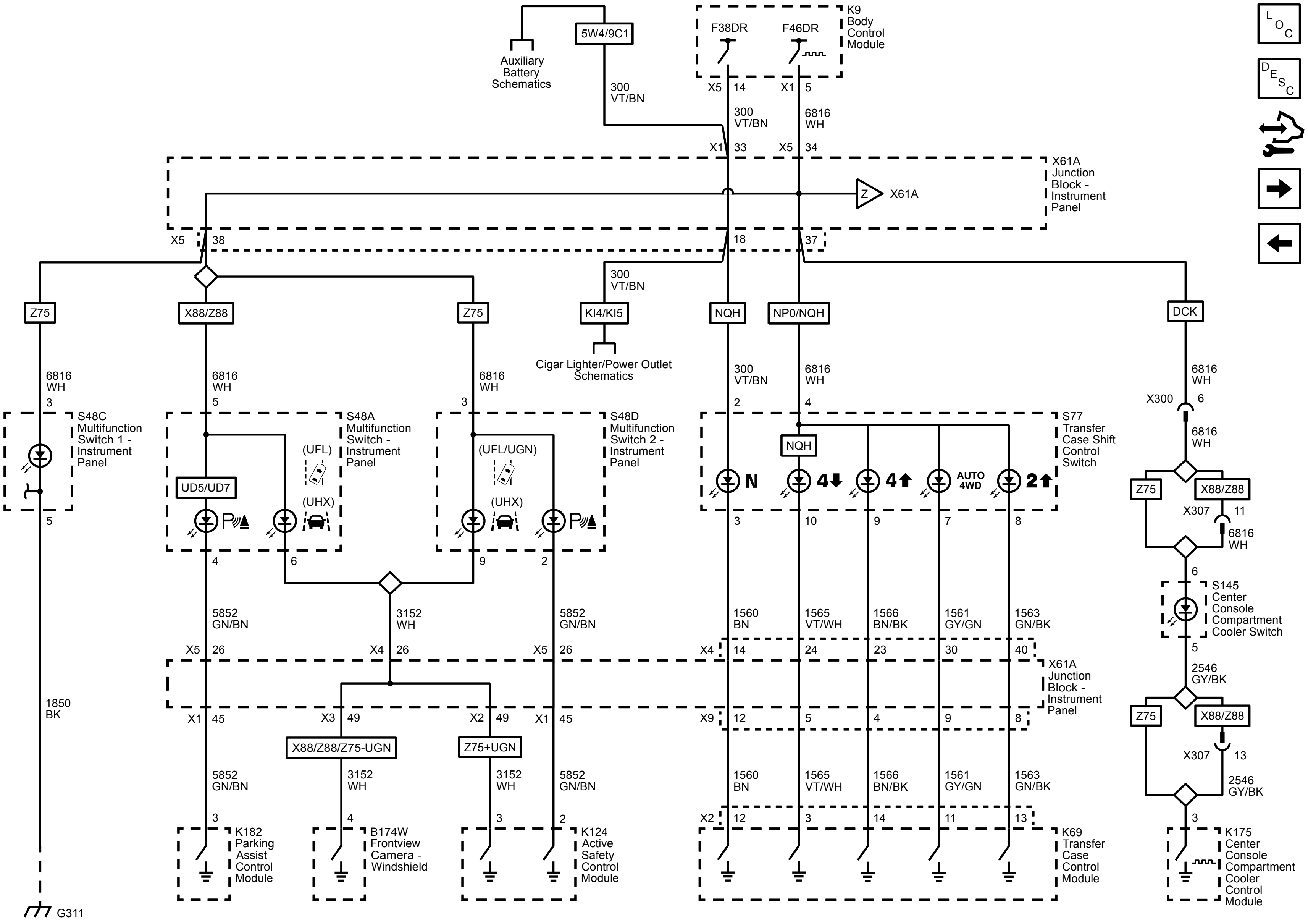
Steering Wheel and Control Dimming


J208
V
6817
BN
X2
3
X51L
Fuse Block
- Instrument
Panel Left
F12DL
2A
X2
4
6136
BN
X201
38
6136
BN
X1
5
X85
Steering Wheel Air
Bag Coil
X2
6
-UK3
6136
YE
K9
Body
Control
Module
UK3
S70R
Steering
Wheel
Controls
Switch -
Right
A90
Logic
1 (X88/Z88)
2 (Z75)
6
6817
YE (X88/Z88)
6817
OG/BK (Z75)
2 (Z75)
6 (X88/Z88)
S70L
Steering Wheel
Controls Switch -
Left
1 (X88/Z88)
6 (Z75)
1050
BK
1050
BK
G210
(X88/Z88)+(KA1/KB6)
S31D
Seat
Heating and
Cooling
Switch -
Driver
A90
Logic
(X88/Z88)+(KA1/KB6)
S31P
Seat
Heating and
Cooling
Switch -
Passenger
A90
Logic
P16
Instrument
Cluster
A90
Logic
A34
HVAC
Controls -
Auxiliary
A90
Logic
A10
Inside
Rearview
Mirror
A90
Logic
UE1
P17
Info
Display
Module
A90
Logic

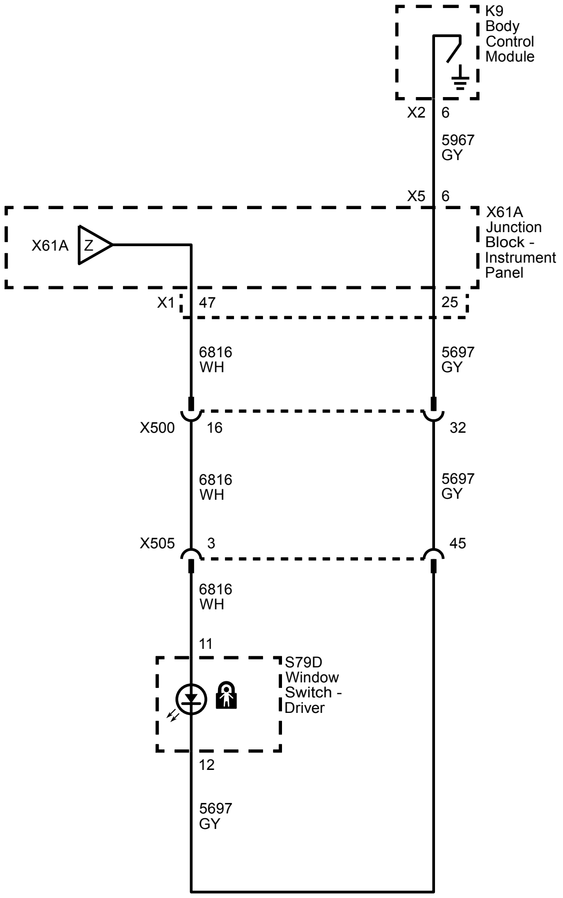
Door Locks, Windows and Mirror Switch Dimming


K9
Body
Control
Module
F46DR
X7 9
6817
YE
J383
S52
Outside
Rearview
Mirror
Switch
A90
Logic
A45
X500 29
X600 29
X505 1
X605 1
-A45
A45
1
S13D
Door Lock
Switch -
Driver
6
S52
Outside
Rearview
Mirror
Switch
2
S47D
Seat Memory
Switch - Driver
1
S13P
Door Lock
Switch -
Passenger
17 (A45)
5 (-A45)
S79P
Window Switch -
Passenger
4
5
1
4
1 (-A45)
13 (A45)
5978
BK/BU
X505 32
X500 21
X310 40
X6 11
K40D
Seat Memory
Control Module -
Driver
S79D
Window
Switch -
Driver
S79LR
Window
Switch -
Left Rear
S79RR
Window
Switch -
Right Rear
1
5
5
1150
BK
1250
BK
G311
G312

Indicators Lamps (1 of 3)

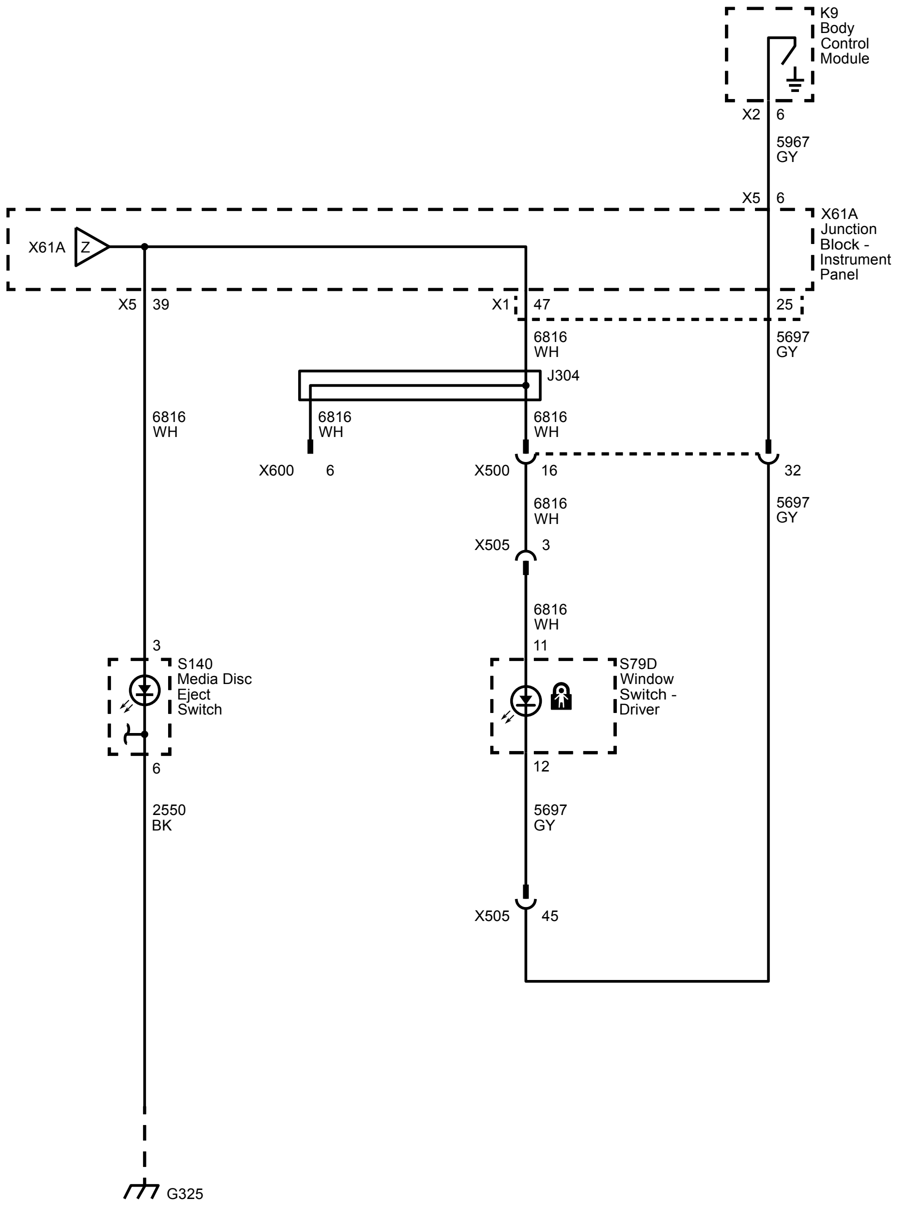

Auxiliary
Battery
Schematics
5W4/9C1
300
VT/BN
F38DR
F46DR
K9
Body
Control
Module
X5 14
X1 5
300
VT/BN
6816
WH
X1 33
X5 34
X61A
Junction
Block -
Instrument
Panel
Z
X61A
X5
38
18
37
300
VT/BN
Z75
X88/Z88
Z75
KI4/KI5
NQH
NP0/NQH
DCK
Cigar Lighter/Power Outlet
Schematics
6816
WH
3
S48C
Multifunction
Switch 1 -
Instrument
Panel
5
6816
WH
5
S48A
Multifunction
Switch -
Instrument
Panel
UD5/UD7
(UFL)
(UHX)
4
6
6816
WH
3
S48D
Multifunction
Switch 2 -
Instrument
Panel
(UFL/UGN)
(UHX)
9
2
300
VT/BN
2
6816
WH
4
NQH
N
4
4
AUTO
4WD
2
S77
Transfer
Case Shift
Control
Switch
3
10
9
7
8
6816
WH
X300
6
6816
WH
Z75
X88/Z88
X307
11
6816
WH
6
S145
Center
Console
Compartment
Cooler Switch
5
2546
GY/BK
Z75
X88/Z88
X307
13
2546
GY/BK
3
5852
GN/BN
3152
WH
5852
GN/BN
1560
BN
1565
VT/WH
1566
BN/BK
1561
GY/GN
1563
GN/BK
X5 26
X4 26
X5 26
X4 14
24
23
30
40
X61A
Junction
Block -
Instrument
Panel
1850
BK
X1 45
X3 49
X2 49
X1 45
X9 12
5
4
9
8
X88/Z88/Z75-UGN
Z75+UGN
5852
GN/BN
3152
WH
3152
WH
5852
GN/BN
1560
BN
1565
VT/WH
1566
BN/BK
1561
GY/GN
1563
GN/BK
3
K182
Parking
Assist
Control
Module
4
B174W
Frontview
Camera -
Windshield
3
2
K124
Active
Safety
Control
Module
X2 12
3
14
11
13
K69
Transfer
Case
Control
Module
K175
Center
Console
Compartment
Cooler
Control
Module
G311
LOC
DESC

Indicators Lamps (2 of 3) (X88 or Z88)

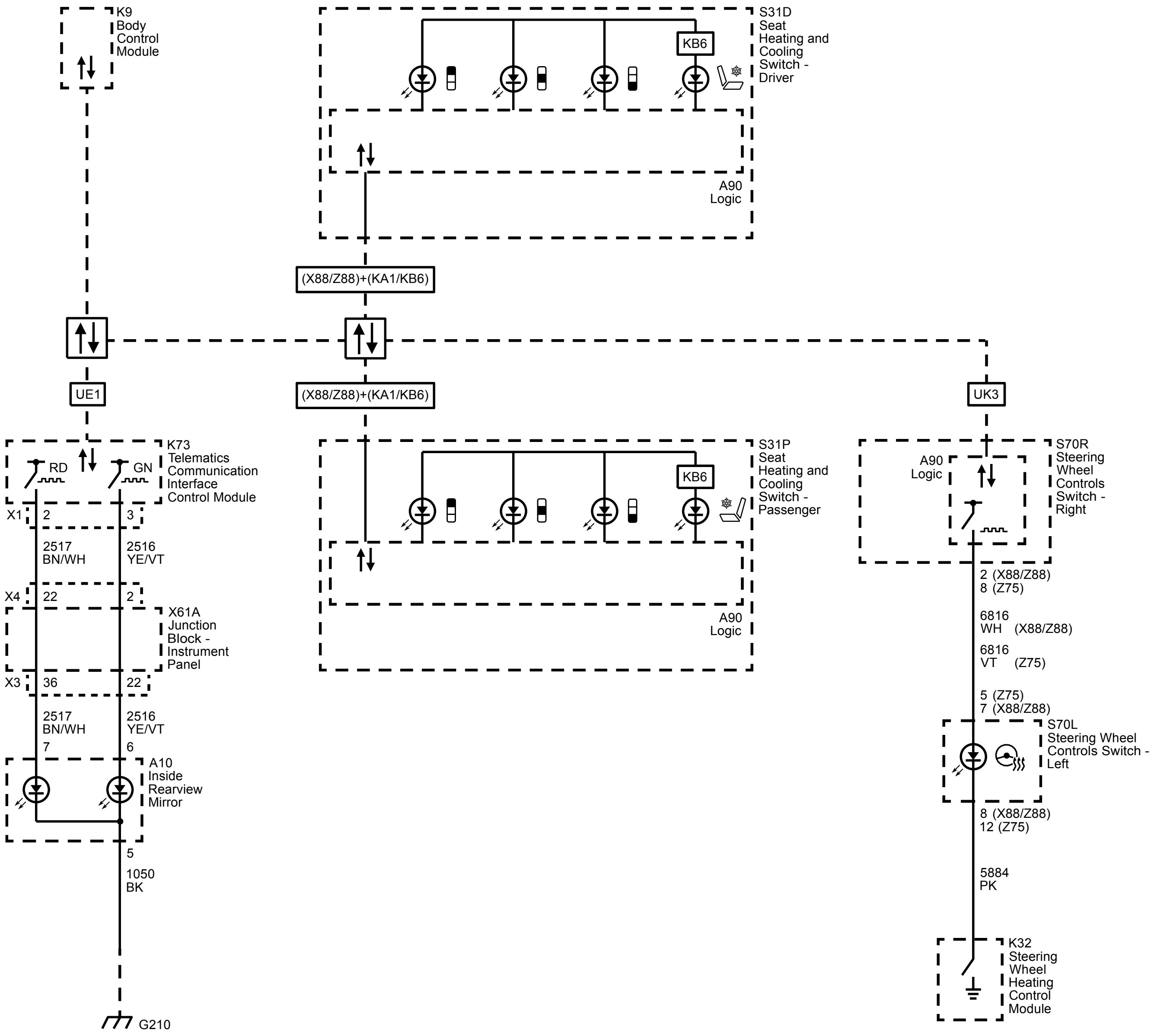


K9
Body
Control
Module
X2
6
5967
GY
X5
6
X61A
Junction
Block -
Instrument
Panel
X61A
Z
X1
47
25
6816
WH
5697
GY
X500
16
32
6816
WH
5697
GY
X505
3
45
6816
WH
11
S79D
Window
Switch -
Driver
12
5697
GY

Indicators Lamps (2 of 3) (Z75)


K9
Body
Control
Module
X2
6
5967
GY
X5
6
X61A
Junction
Block -
Instrument
Panel
X61A
Z
X5
39
X1
47
25
6816
WH
5697
GY
J304
6816
WH
6816
WH
6816
WH
X600
6
X500
16
32
6816
WH
5697
GY
X505
3
6816
WH
11
S79D
Window
Switch -
Driver
12
5697
GY
X505
45
3
S140
Media Disc
Eject
Switch
6
2550
BK
G325

Indicators Lamps (3 of 3)


K9
Body
Control
Module
S31D
Seat
Heating and
Cooling
Switch -
Driver
KB6
A90
Logic
(X88/Z88)+(KA1/KB6)
(X88/Z88)+(KA1/KB6)
UE1
UK3
K73
Telematics
Communication
Interface
Control Module
RD
GN
X1
2
3
2517
BN/WH
2516
YE/VT
X4
22
2
X61A
Junction
Block -
Instrument
Panel
X3
36
22
2517
BN/WH
2516
YE/VT
7
6
A10
Inside
Rearview
Mirror
5
1050
BK
G210
S31P
Seat
Heating and
Cooling
Switch -
Passenger
KB6
A90
Logic
A90
Logic
S70R
Steering
Wheel
Controls
Switch -
Right
2 (X88/Z88)
8 (Z75)
6816
WH (X88/Z88)
6816
VT (Z75)
5 (Z75)
7 (X88/Z88)
S70L
Steering Wheel
Controls Switch -
Left
8 (X88/Z88)
12 (Z75)
5884
PK
K32
Steering
Wheel
Heating
Control
Module

Description and Operation

Exterior Lighting Systems Description and Operation

The exterior lighting system consist of the following lamps:

- Automatic high beam assist
- Backup lamps
- Daytime running lamps
- Hazard warning lamps
- Headlamps
- Park, tail, license, and marker lamps
- Stop lamps
- Turn signal lamps

Low Beam Headlamps

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch is placed in the ON position, for normal operation
- When the headlamp switch is placed in the AUTO position, for automatic lamp control
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

The BCM will also command the low beam headlamps ON during daylight conditions when the following conditions are met:

- Headlamp switch in the AUTO position
- Windshield wipers ON
- Vehicle in any gear but PARK

When the BCM commands the low beam headlamps ON, the vehicle operator will notice the interior backlighting for the instrument cluster and the various switches with backlighting control will dim to the level of brightness selected by the instrument panel dimmer switch.

Low Beam Headlamps (without T4F)

The body control module (BCM) monitors three signal circuits from the headlamp switch. When the headlamp switch is in the AUTO position, all three signal circuits are open. When placed in the AUTO position, the BCM monitors inputs from the ambient light sensor to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. When the headlamp switch is placed in the OFF position, the headlamp switch headlamps OFF signal circuit is grounded, indicating to the BCM that the exterior lamps should be turned OFF. With the headlamp switch in the PARK position, the headlamp switch park lamps ON signal circuit is grounded, indicating that the park lamps have been requested. When the headlamp switch is placed in the HEADLAMP position, both the headlamp switch park lamps ON signal circuit and the headlamp switch headlamps ON signal circuit are grounded. The BCM responds to the inputs by illuminating the park lamps and headlamps. When the low beam headlamps are requested, the BCM applies B+ to both low beam headlamp control circuits illuminating the low beam headlamps.

Low Beam Headlamps (with Z75)

The body control module (BCM) monitors three signal circuits from the headlamp switch. When the headlamp switch is in the AUTO position, all three signal circuits are open. When placed in the AUTO position, the BCM monitors inputs from the ambient light sensor to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. When the headlamp switch is placed in the OFF position, the headlamp switch headlamps OFF signal circuit is grounded, indicating to the BCM that the exterior lamps should be turned OFF. With the headlamp switch in the PARK position, the headlamp switch park lamps ON signal circuit is grounded, indicating that the park lamps have been requested. When the headlamp switch is placed in the HEADLAMP position, both the headlamp switch park lamps ON signal circuit and the headlamp switch headlamps ON signal circuit are grounded. The BCM responds to the inputs by illuminating the park lamps and headlamps. When the low beam headlamps are requested, the BCM applies B+ to both low beam headlamp control circuits to the left and right multifunction light emitting diode (LED) control modules located in each headlamp assembly. The multifunction LED control modules respond the to the B+ input from the BCM by illuminating the left and right low beam LED headlamps.

Low Beam Headlamps (with T4F)

Warning: The high intensity discharge system produces high voltage and current. To reduce the risk of severe shocks and burns:

- **Never open the high intensity discharge system ballast or the arc tube assembly starter.**
- **Never probe between the high intensity discharge system ballast output connector and the arc tube assembly.**

The body control module (BCM) monitors three signal circuits from the headlamp switch. When the headlamp switch is in the AUTO position, all three signal circuits are open. When placed in the AUTO position, the BCM monitors inputs from the ambient light sensor to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. When the headlamp switch is placed in the OFF position, the headlamp switch headlamps OFF signal circuit is grounded, indicating to the BCM that the exterior lamps should be turned OFF. With the headlamp switch in the PARK position, the headlamp switch park lamps ON signal circuit is grounded, indicating that the park lamps have been requested. When the headlamp switch is placed in the HEADLAMP position, both the headlamp switch park lamps ON signal circuit and the headlamp switch headlamps ON signal circuit are grounded. The BCM responds to the low beam request by applying ground to the low beam relay control circuit which energizes the low beam relay. With the low beam relay energized, the switch contacts close allowing battery voltage to flow through the low beam fuses. Battery voltage is then applied from the fuses, through the low beam control circuits to the left and right headlamp ballast located in each headlamp assembly. When battery voltage is applied to the headlamp ballast through the low beam control circuits, the ballast charge the starter to start the lamp. High intensity discharge (HID) headlamps do not have filaments like traditional bulbs, instead the starter uses a high voltage transformer to convert the input voltage into a higher voltage. This increased voltage is used in order to create an arc between the electrodes in the bulb.

Run Up Of The Lamp

Each ballast requires higher amperage in order to ensure normal startup and run up of the lamp. Run up is the term used to describe the extra power level given to the bulb. The input current during the steady state operation is lower that the start up amperage. After the lamp receives the strike from the starter and the arc is established, the ballast uses its operating voltage in order to provide the run up power needed in order to keep the lamp on. The lamp rapidly increases in intensity from a dim glow to a very high-intensity, bright light called a steady state. Within a few seconds of the arc being established in the bulb, the majority of steady state is complete. 100 percent of the steady state is completed shortly there after. A high watt power level is necessary in order to bring the lamp to a steady state in such a short period of time. The high watt power level allows the lamp to meet the SAE light vs. time specification.

When To Change The HID Bulb

Bulb failure, end of life occurs when the bulb gets old and becomes unstable. The bulb may begin shutting itself off sporadically and unpredictably at first, perhaps only once during a 24 hour period. When the bulb begins shutting itself off occasionally, the ballast will automatically turn the bulb back on again within 0.5 seconds. The ballast will re-strike the bulb so quickly that the bulb may not appear to have shut off. As the bulb ages, the bulb may begin to shut off more frequently, eventually over 30 times per minute. When the bulb begins to shut off more frequently, the ballast receives excessive, repetitive current input . Repetitive and excessive restarts or re-strikes, without time for the ballast to cool down, will permanently damage the ballast. As a safeguard, when repetitive re-strikes are detected, the ballast will not attempt to re-strike the lamp. The ballast then shuts down and the bulb goes out.

The following symptoms are noticeable signs of bulb failure:

- Flickering light, caused in the early stages of bulb failure
- Lights go out, caused when the ballast detects excessive, repetitive bulb re-strike
- Color change – The lamp may change to a dim pink glow.

Input power to the ballast must be terminated in order to reset the ballast's fault circuitry. In order to terminate the input power to the ballast, turn the lights off and back on again. Turning the lights off and back on again resets all of the fault circuitry within the ballast until the next occurrence of excessive, repetitive bulb re-strikes. When excessive, repetitive bulb re-strikes occur, replace the starter/arc tube assembly. The ballast will begin the start-up process when the starter/arc tube assembly is replaced. Repeatedly resetting the input power can overheat the internal components and cause permanent damage to the ballast. Allow a few minutes of cool-down time in between reset attempts.

Light Color

White light has a different color rating than regular headlamps. The range of white light that is acceptable is broad when compared to halogens. Therefore, some variation in headlight coloring between the right and left headlamp will be normal. One high intensity discharge (HID) at the end of the normal range may appear considerably different in color from one at the other end of the range. Difference in color is normal. Replace the arc tube only if the arc tube is determined to be at the bulb failure stage.

High Beam Headlamps (with and without T4F)

When the low beam headlamps are ON and the turn signal/multifunction switch is placed in the high beam position, ground is applied to the BCM through the high beam signal circuit. The BCM responds to the high beam request by applying ground to the high beam relay control circuit which energizes the high beam relay. With the high beam relay energized, the switch contacts close allowing battery voltage to flow through the 3 pin high beam fuse to the high beam control circuits illuminating the left and right high beam headlamps.

High Beam Headlamps (with Z75)

When the low beam headlamps are ON and the turn signal/multifunction switch is placed in the high beam position, ground is applied to the BCM through the high beam signal circuit. The BCM responds to the high beam request by applying ground to the high beam relay control circuit which energizes the high beam relay. With the high beam relay energized, the switch contacts close allowing battery voltage to flow through the 3 pin high beam fuse to the high beam control circuits. The high beam control circuits are connected to the left and right multifunction light emitting diode (LED) control modules located in each headlamp assembly. The multifunction LED control modules respond the to the B+ input from the high beam relay by illuminating the left and right high beam LED headlamps.

Automatic High Beam Assist (AHBA)

The automatic high beam assist (AHBA) system operates the high beam headlamps ON and OFF automatically when the system is activated and certain conditions are met. The AHBA system consists of a front camera module that detects light and is able to identify approaching vehicles on an even, straight road at a distance of greater than 0.4 km (0.25 mi). The front camera module analyzes light color, intensity, and movement. The AHBA system will turn OFF the high beam headlamps when approaching vehicle headlamps or preceding vehicle taillights are detected by the front camera module. AHBA can be deactivated when the headlamp dimmer switch is moved from the neutral position to the high beam or flash to pass positions. AHBA can be reactivated by operating the high beam select switch from the neutral position to the high beam position twice within 2 seconds.

AHBA System Activation

- Vehicle ON
- Headlamp switch placed in the AUTO position
- Headlamp dimmer switch must be in the neutral position
- Outside lighting conditions must be dark
- Vehicle speed greater than 25 mph (40 km/h)

AHBA System Operation

The following are conditions that the AHBA system will turn the high beam headlamps off during operation:

- The system detects approaching traffic headlamps
- The system detects preceding traffic tail lamps
- Ambient light level too high due to towns or twilight situations
- The vehicle’s speed drops below 13 mph (22 km/h)
- Delay

Note: AHBA may not operate properly if any of the following conditions exist:

- Approaching and preceding vehicles lamps are undetectable due to dirt, snow, road spray, smoke, fog, or any other airborne conditions.
- The front camera module is covered with ice, dirt, snow, haze, or is obstructed.
- The vehicle is being driven on winding or hilly road conditions which would make any on coming vehicle headlamps undetectable by the AHBA.

AHBA System Deactivation

- Manually operating the headlamp dimmer switch from neutral to high beam position
- AHBA is deactivated automatically when the front or rear fog lamps are turned ON

AHBA System Indicator

The status of the AHBA system is shown by a green indicator located on the instrument panel cluster. When AHBA is active, the indicator will be illuminated continuously. If the operator deactivates the AHBA system, the indicator will turn off.

Daytime Running Lamps

The daytime running lamps will illuminate continuously when the following conditions are met:

- The ignition is in the RUN or CRANK position
- The shift lever is out of the PARK position for vehicles equipped with automatic transmissions or the parking brake is released for vehicles with manual transmissions
- The low and high beam headlamps are OFF

Daytime Running Lamps (without T4F)

The ambient light sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 V depending on outside lighting conditions. The body control module (BCM) provides a 5 V reference signal to the ambient light sensor and the HVAC control module provides a low reference ground. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either daytime running lights or automatic lamp control when the headlamp switch is in the AUTO position. In daylight conditions the BCM will command the low beam headlamps ON. Any function or condition that turns on the headlamps will cancel daytime running lamps operation.

Daytime Running Lamps (X88 with TB8 or T4F) or (Z88)

The ambient light sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 V depending on outside lighting conditions. The body control module (BCM) provides a 5 V reference signal to the ambient light sensor and the HVAC control module provides a low reference ground. The BCM monitors the ambient light sensor to determine if outside lighting conditions are correct for either daytime running lamps or automatic lamp control when the headlamp switch is in the AUTO position. In daylight conditions the BCM applies B+ to both daytime running lamp control circuits to the left and right multifunction light emitting diode (LED) control modules located in each headlamp assembly. The multifunction LED control modules respond the to the B+ input from the BCM by illuminating the left and right daytime running lamp LED’s. When the daytime running lamps are ON and a turn signal is activated, the lower portion of the daytime running lamp halo is used for the turn signal and color changes to amber. The remaining portion of the daytime running lamp halo turns OFF for as long as the respective turn signal is active. When the turn signal is turned OFF the full daytime running lamp halo illuminates at normal color. Any function or condition that turns on the low beam headlamps will cancel daytime running lamps operation.

Daytime Running Lamps (Z75)

The ambient light sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 V depending on outside lighting conditions. The body control module (BCM) provides a 5 V reference signal to the ambient light sensor and the HVAC control module provides a low reference ground. The BCM monitors the ambient light sensor to determine if outside lighting conditions are correct for either daytime running lamps or automatic lamp control when the headlamp switch is in the AUTO position. In daylight conditions the BCM applies B+ to both daytime running lamp control circuits to the left and right multifunction light emitting diode (LED) control modules located in each headlamp assembly and multifunction lamp assemblies – front fascias. The multifunction LED control modules respond the to the B+ input from the BCM by illuminating the left and right daytime running lamp LED’s located in each headlamp assembly as well as each multifunction lamp assembly located in the front fascia. Any function or condition that turns on the low beam headlamps will cancel daytime running lamps operation.

Flash to Pass

When the turn signal/multifunction switch is momentarily placed in the flash to pass position, ground is applied to the turn signal/multifunction switch. The turn signal/multifunction switch applies ground to the body control module (BCM) through the flash to pass switch signal circuit. The BCM responds to the flash to pass request by applying ground to the high beam relay control circuit. This energizes the high beam relay, closing the switch side contacts of the high beam relay, applying battery voltage to the 3 pin high beam fuse. Battery voltage is applied from the high beam fuse through the high beam control circuit to the high beam headlamp assemblies. This causes the high beam headlamps to illuminate at full brightness momentarily.

Hazard Lamps

The hazard flashers may be activated in any power mode. The hazard switch signal circuit is momentarily grounded when the hazard switch is pressed. The body control module (BCM) responds to the hazard switch signal input by supplying battery voltage to all four turn signal lamps in an ON and OFF duty cycle. When the hazard switch is activated, the BCM sends a serial data message to the instrument panel cluster requesting both turn signal indicators to be cycled ON and OFF.

The instrument panel dimmer switch controls the brightness of the interior backlighting components. When the instrument panel dimmer switch is placed in a desired brightness position, the body control module (BCM) receives a signal from the instrument panel dimmer switch and responds by applying a pulse width modulated voltage to the hazard switch light emitting diode (LED) backlighting control circuit illuminating the LED to the desired level of brightness.

Park, Tail, and License Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, and license lamps control circuits illuminating the park, tail, and license lamps.

Stop Lamps

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the left and right stop lamp control circuits as well as the center high mounted stop lamp control circuit illuminating the left and right stop lamps and the center high mounted stop lamp.

Turn Signal Lamps

Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the front and rear turn signal lamps through there respective control circuits. When a turn signal request is received by the BCM, a serial data message is sent to the instrument cluster requesting the respective turn signal indicator be pulsed ON and OFF.

Backup Lamps

With the engine ON and the transmission in the REVERSE position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the REVERSE position. The BCM applies battery voltage to the backup lamps control circuit illuminating the backup lamps. Once the driver moves the gear selector out of the REVERSE position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamps control circuit. The engine must be ON for the backup lamps to operate.

Trailer Lamps

Backup Lamps

For backup lamp operation, the backup lamp relay is supplied with battery voltage at all times. With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, license lamps, and trailer park lamps control circuits illuminating the park, tail, license, and trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/turn signal lamp relay’s are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the left and right trailer stop/turn signal lamp relay’s by applying voltage to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay’s energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse’s to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay’s are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the left and right trailer stop/turn signal lamp relay control circuits energizing the relay’s in an ON and OFF cycle. With the left and right trailer stop/turn signal lamp relay’s energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left and right trailer stop/turn signal fuse’s to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Trailer Lamps (Export VQ9)

The trailer interface control module is supplied with battery voltage as well as ignition voltage from the rear body fuse block and is permanently grounded. For lighting operation, the trailer interface control module receives serial data messages from the body control module (BCM) indicating what lamps have been activated on the vehicle. The trailer interface control module responds by applying voltage to the appropriate control circuits for the requested lamps illuminating the lamps on the attached trailer.

For stop lamp operation, the trailer interface control module receives an input from the center high mount stop lamp control circuit. When the brakes are applied on the vehicle, the trailer interface control module receives the brake applied input from the center high mount stop lamp control circuit. The trailer interface control module responds by applying voltage to the trailer stop lamp control circuit illuminating the trailer stop lamps. The trailer interface control module also receives a serial data message from the BCM indicating that the vehicle brakes have been applied.

Battery Run Down Protection/Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The BCM monitors the state of the headlamp switch. If the park or headlamp switch is ON when the ignition switch is placed in either the CRANK or RUN position and then placed in the OFF position, the BCM initiates a 10 minute timer. At the end of the 10 minutes, the BCM will turn off the control power output to the park lamp controls as well as the headlamp relay coils, deactivating the exterior lamps. This feature will be cancelled if any power mode other than OFF becomes active. The BCM will disable battery run down protection if any of the following conditions exist. The park or headlamp switch is placed in the ON to OFF position, and back to the ON position during battery run down protection. The BCM determined that the park or headlamp switch was not active when the ignition was turned OFF.

Interior Lighting Systems Description and Operation

Interior Lamps

The interior lighting system consist of two groups. This first group includes lamps that may not be dimmed.

- Dome lamps
- I/P compartment lamps
- Reading lamps
- Rear compartment courtesy lamp
- Sunshade mirror lamps

Dome Lamps

The dome lamp switch has 3 positions: DOOR, OFF, and ON. The ON position provides a ground for continuous operation and the dome lamp will remain illuminated until the switch is placed in either the DOOR or OFF position. When in the DOOR position, the dome lamp operation is controlled by the body control module (BCM). When any door is opened, the door ajar switch contacts close and the BCM receives a door-open input. The BCM illuminates the dome lamp when any door is opened or a door lock/unlock request is activated with the key fob. After all doors have been closed, the dome lamp will remain illuminated approximately 3 seconds after the last door closes. When the driver places the dome lamp switch in the OFF position, the dome lamp will be disabled. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position and no doors opened, the BCM will deactivate the dome lamp control circuit to prevent total battery discharge. The dome lamps will turn OFF using the theater dimming feature when controlled by the BCM.

Center Console Compartment Lamp

The inadvertent power supply voltage circuit from the BCM provides battery voltage to the center console compartment lamp. When the center console is opened, the center console compartment lamp switch contacts close providing a path to ground and the center console compartment lamp illuminates. If the operator inadvertently leaves the center console compartment door open with the center console compartment lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Instrument Panel (I/P) Compartment Lamp

The inadvertent power supply voltage circuit from the BCM provides battery voltage to the I/P compartment (glove box) lamp. When the I/P compartment is opened, the I/P compartment lamp switch contacts close providing a path to ground and the I/P compartment lamp illuminates. If the operator inadvertently leaves the I/P compartment door open with the I/P compartment lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM. The I/P compartment lamp is permanently grounded at ground G204.

Reading Lamps

The inadvertent power supply voltage circuit from the BCM provides battery positive voltage to each reading lamp. When a reading lamp switch is activated, the switch contacts close providing a path to ground and the reading lamp illuminates. If the operator inadvertently leaves a reading lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Rear Compartment Courtesy Lamp

When the rear compartment is opened, the rear compartment lid latch opens providing a rear compartment open input signal to the BCM. The BCM responds by applying battery voltage to the rear compartment courtesy lamp control circuit illuminating the rear compartment courtesy lamp.

Sunshade Mirror Lamps

The inadvertent power supply voltage circuit from the BCM provides battery voltage to each set of sunshade mirror lamps. When the sunshade mirror cover is opened, a switch closes providing ground and the sunshade lamps illuminate. If the operator inadvertently leaves a sunshade mirror cover open with the lamps ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Keyless Entry Interior Illumination

When the operator uses the keyless entry transmitter in order to unlock the doors, the BCM receives a door-unlock signal. The BCM must receive inputs from various systems that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all doors are closed before the BCM will activate the interior lamps. After all doors have been closed, the courtesy lamps will turn OFF immediately if the ignition switch is turned to the ON position, the door locks are LOCKED, or approximately 20 seconds after the last door closes. The BCM will turn off the courtesy lamps through the theater dimming feature. The BCM keeps the courtesy lamps on for 40 seconds after an alarm event is completed.

Interior Lamps Dimming

The second group includes lamps which may be dimmed. This group may use a combination of light emitting diodes (LED), incandescent lamps, and pulse width modulation (PWM) illumination.

- Dome/reading lamps – front
- Dome/reading lamps – rear
- Door lock switch – driver
- Door lock switch – passenger
- Headlamp switch
- Hazard switch
- HVAC control head assembly
- Ignition mode switch
- Multifunction switch – instrument panel
- Outside rearview mirror switch
- Park brake switch

- Radio
- Rear compartment lid unlatch switch
- Steering wheel control switch – left
- Steering wheel control switch – right
- Sun roof switch
- Sun roof tilt switch
- Window switch – passenger

With the headlamp switch in the PARK or HEAD position, the park lamp switch signal circuit provides an input to the body control module (BCM). The BCM responds by applying voltage to the park lamps as well as the backlight dimming control circuits illuminating all components with interior backlighting. All interior backlighting turns ON at the dimming level indicated by the instrument panel (I/P) dimmer switch. The instrument panel (I/P) dimmer switch is a momentary type switch and utilizes a resistor ladder to increase and decrease the brightness of the interior backlighting components. The I/P dimmer switch provides a voltage signal to the BCM that will increase as the brightness of the lights are increased and decrease as the brightness of the lights are decreased. The BCM provides a low reference signal and a B+ circuit to the I/P dimmer switch. When the I/P dimmer switch is held in the desired position, the dimmed voltage setting is applied from the I/P dimmer switch through the I/P dimmer switch signal circuit to the BCM. The BCM interprets the signal and applies a pulse width modulated (PWM) voltage through the backlighting control circuits illuminating the interior backlighting to the requested level of brightness.

Battery Rundown Protection/Inadvertent Power

The BCM inadvertent power supply voltage circuit provides battery voltage to all of the interior courtesy lamps. In the event that any of these lamps were to remain illuminated for a period of more than 10 minutes with the ignition switch in the OFF position, the BCM will deactivate the inadvertent power supply voltage circuit to prevent total battery discharge. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this 10 minute period, the timer resets for another 10 minutes.

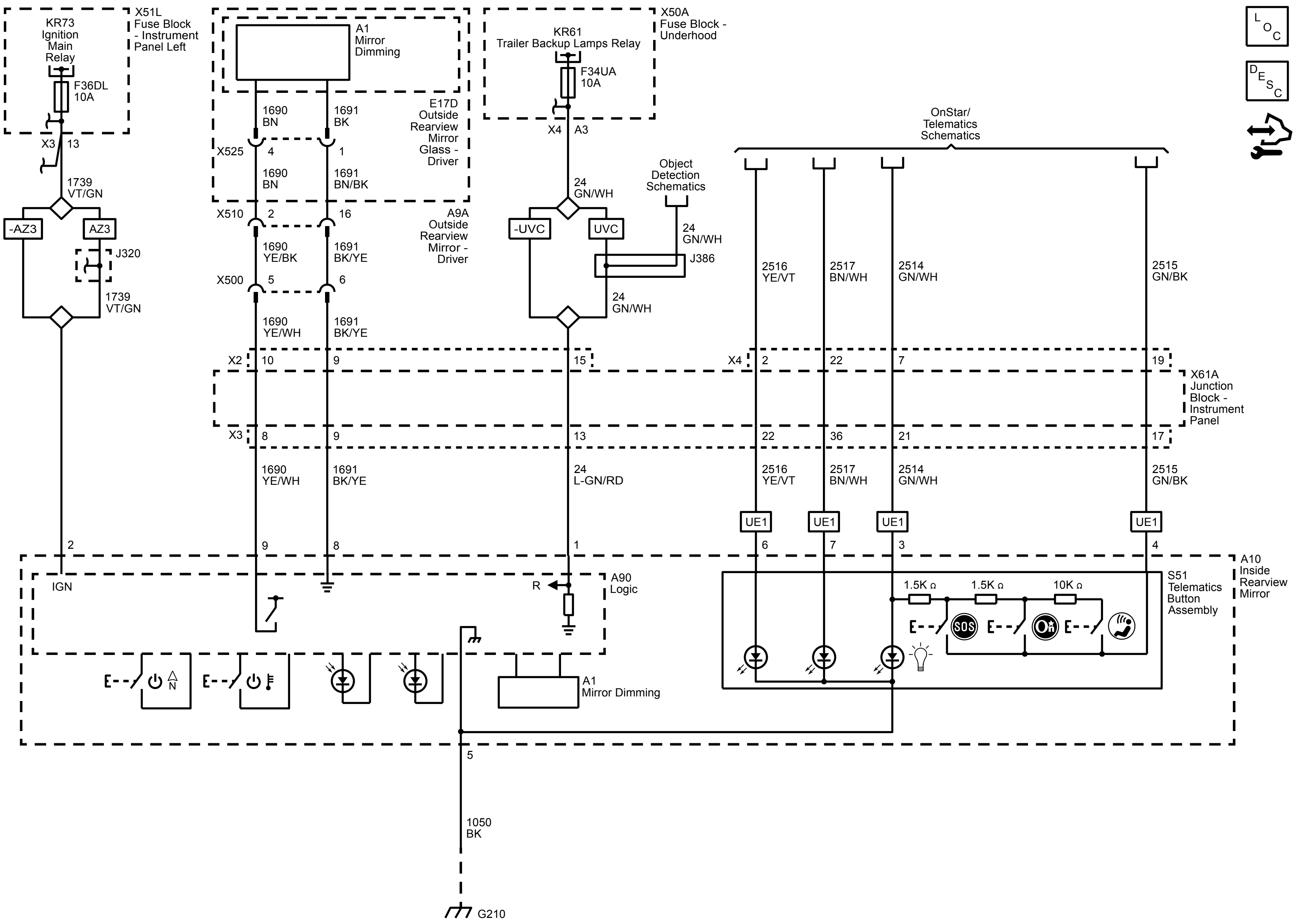
Body Systems

Mirrors

Schematic and Routing Diagrams

Inside Rearview Mirror Schematics

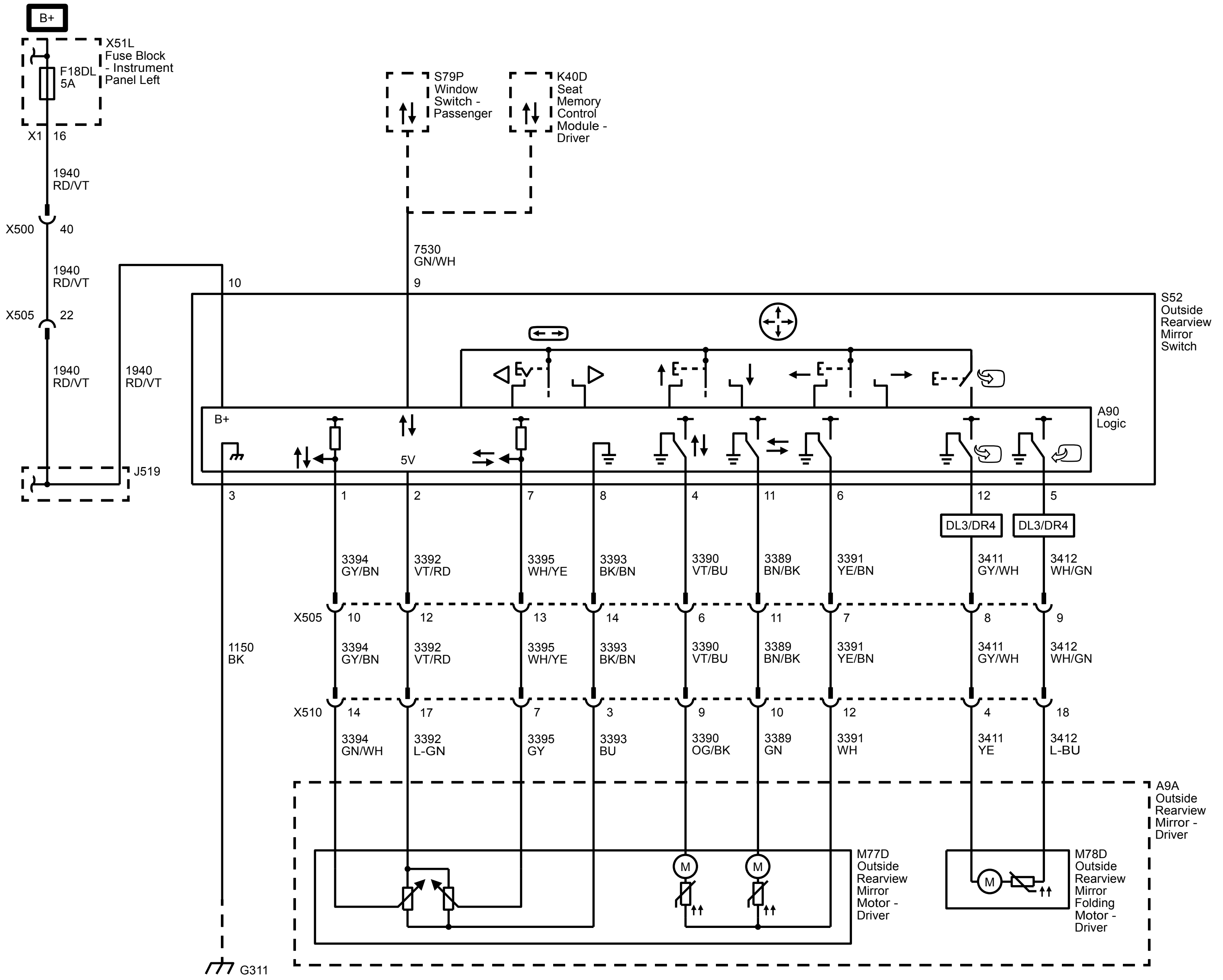
DD8



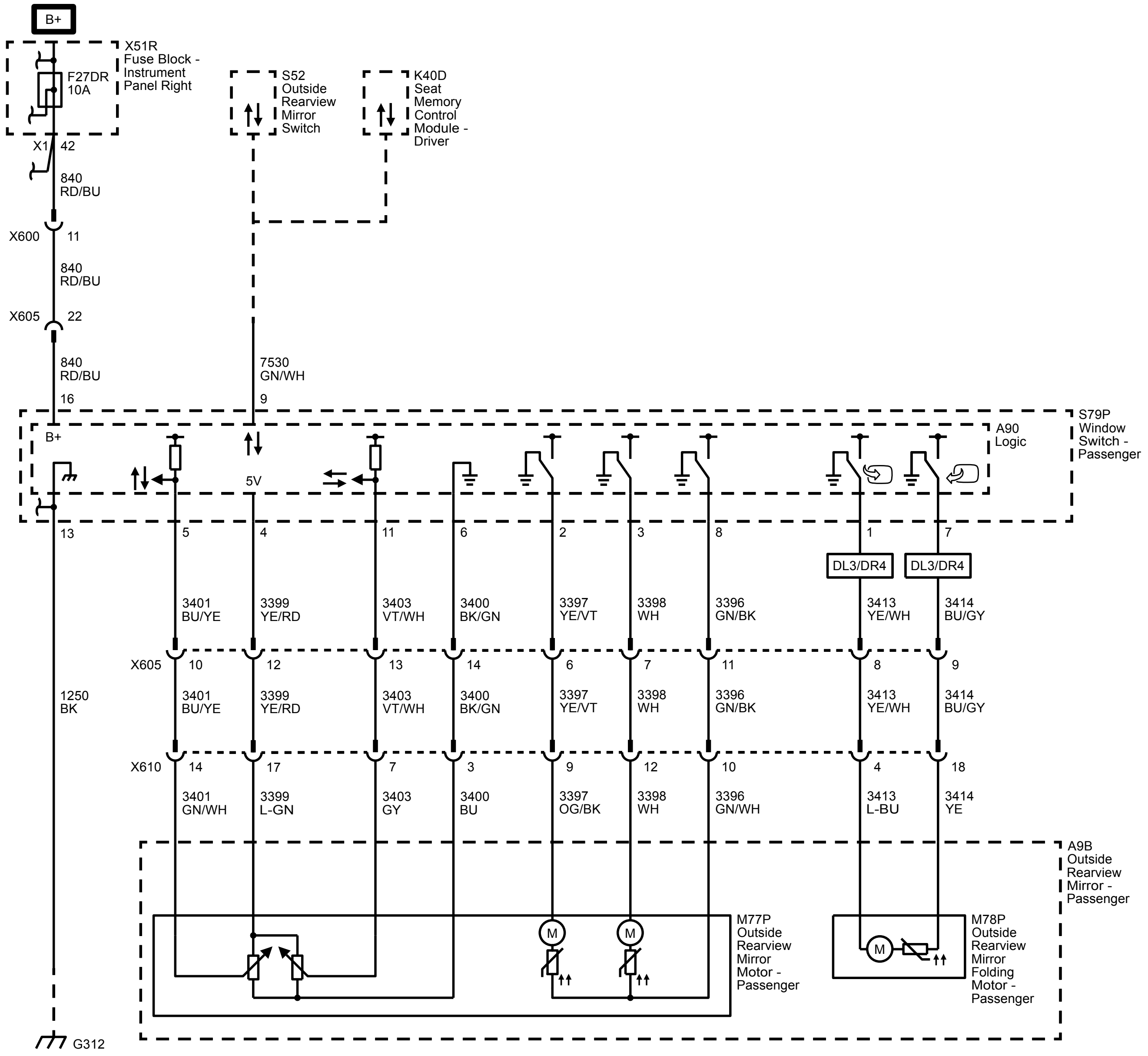
KR73 Ignition Main Relay
X51L Fuse Block - Instrument Panel Left
F36DL 10A
X3 13
1739 VT/GN
-AZ3
AZ3
J320
1739 VT/GN
A1 Mirror Dimming
E17D Outside Rearview Mirror Glass - Driver
1690 BN
1691 BK
X525 4 1
1690 BN
1691 BN/BK
X510 2 16
A9A Outside Rearview Mirror - Driver
1690 YE/BK
1691 BK/YE
X500 5 6
1690 YE/WH
1691 BK/YE
KR61 Trailer Backup Lamps Relay
X50A Fuse Block - Underhood
F34UA 10A
X4 A3
24 GN/WH
-UVC
UVC
Object Detection Schematics
24 GN/WH
J386
24 GN/WH
OnStar/ Telematics Schematics
2516 YE/VT
2517 BN/WH
2514 GN/WH
2515 GN/BK
X2 10 9 15
X4 2 22 7 19
X61A Junction Block - Instrument Panel
X3 8 9 13 22 36 21 17
1690 YE/WH
1691 BK/YE
24 L-GN/RD
2516 YE/VT
2517 BN/WH
2514 GN/WH
2515 GN/BK
UE1
UE1
UE1
UE1
2 9 8 1 6 7 3 4
IGN
R
A90 Logic
A1 Mirror Dimming
1.5K Ω
1.5K Ω
10K Ω
SOS
S51 Telematics Button Assembly
A10 Inside Rearview Mirror
5
1050 BK
G210
LOC
DESC

Outside Rearview Mirror Schematics

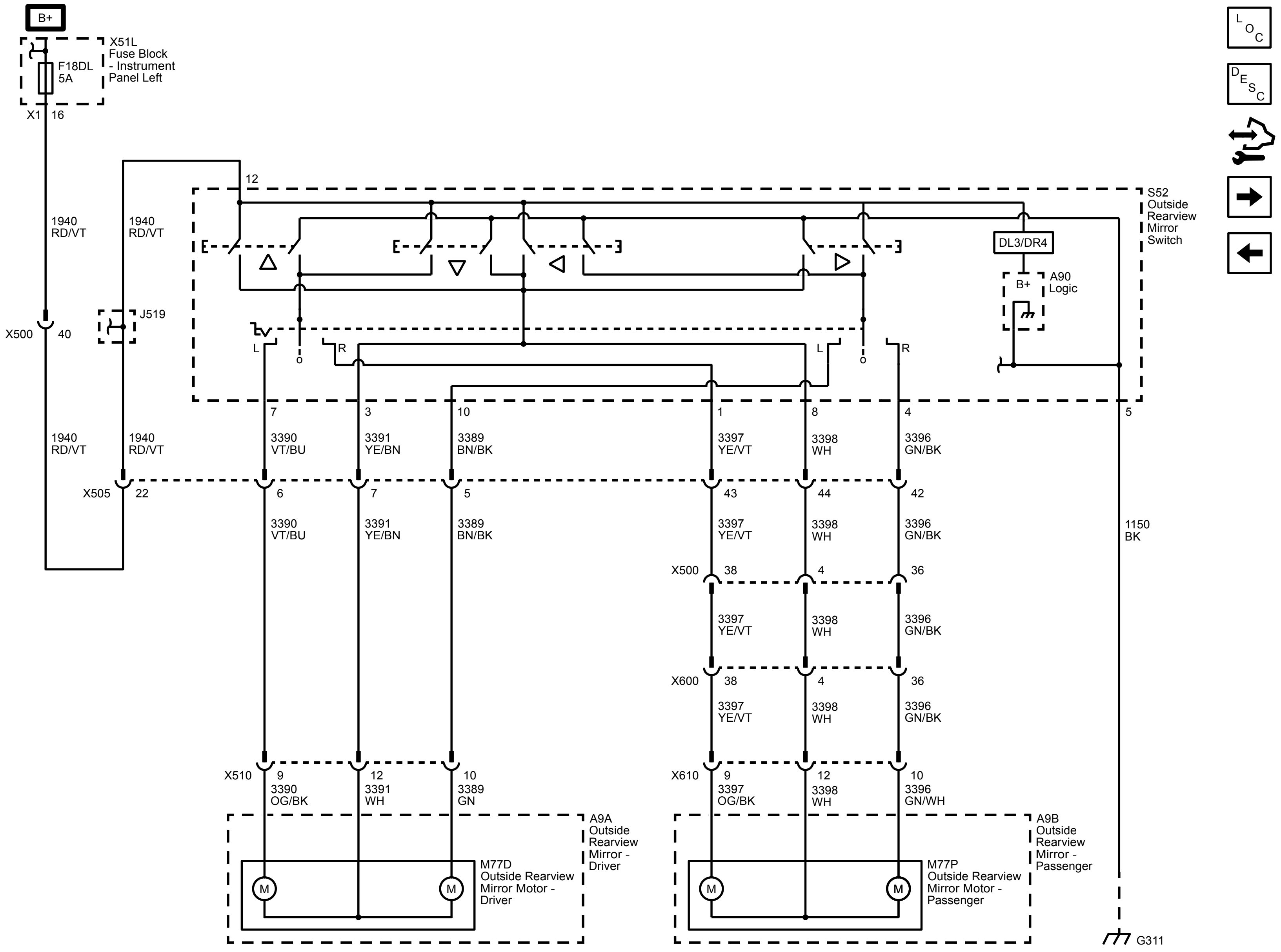
Controls, Driver Position and Folding (A45)


B+
X51L
Fuse Block
- Instrument
Panel Left
F18DL
5A
X1
16
1940
RD/VT
X500
40
1940
RD/VT
X505
22
1940
RD/VT
1940
RD/VT
J519
S79P
Window
Switch -
Passenger
K40D
Seat
Memory
Control
Module -
Driver
7530
GN/WH
10
9
S52
Outside
Rearview
Mirror
Switch
A90
Logic
B+
5V
3
1
2
7
8
4
11
6
12
5
DL3/DR4
DL3/DR4
3394
GY/BN
3392
VT/RD
3395
WH/YE
3393
BK/BN
3390
VT/BU
3389
BN/BK
3391
YE/BN
3411
GY/WH
3412
WH/GN
X505
10
12
13
14
6
11
7
8
9
1150
BK
3394
GY/BN
3392
VT/RD
3395
WH/YE
3393
BK/BN
3390
VT/BU
3389
BN/BK
3391
YE/BN
3411
GY/WH
3412
WH/GN
X510
14
17
7
3
9
10
12
4
18
3394
GN/WH
3392
L-GN
3395
GY
3393
BU
3390
OG/BK
3389
GN
3391
WH
3411
YE
3412
L-BU
A9A
Outside
Rearview
Mirror -
Driver
M
M
M77D
Outside
Rearview
Mirror
Motor -
Driver
M
M78D
Outside
Rearview
Mirror
Folding
Motor -
Driver
G311

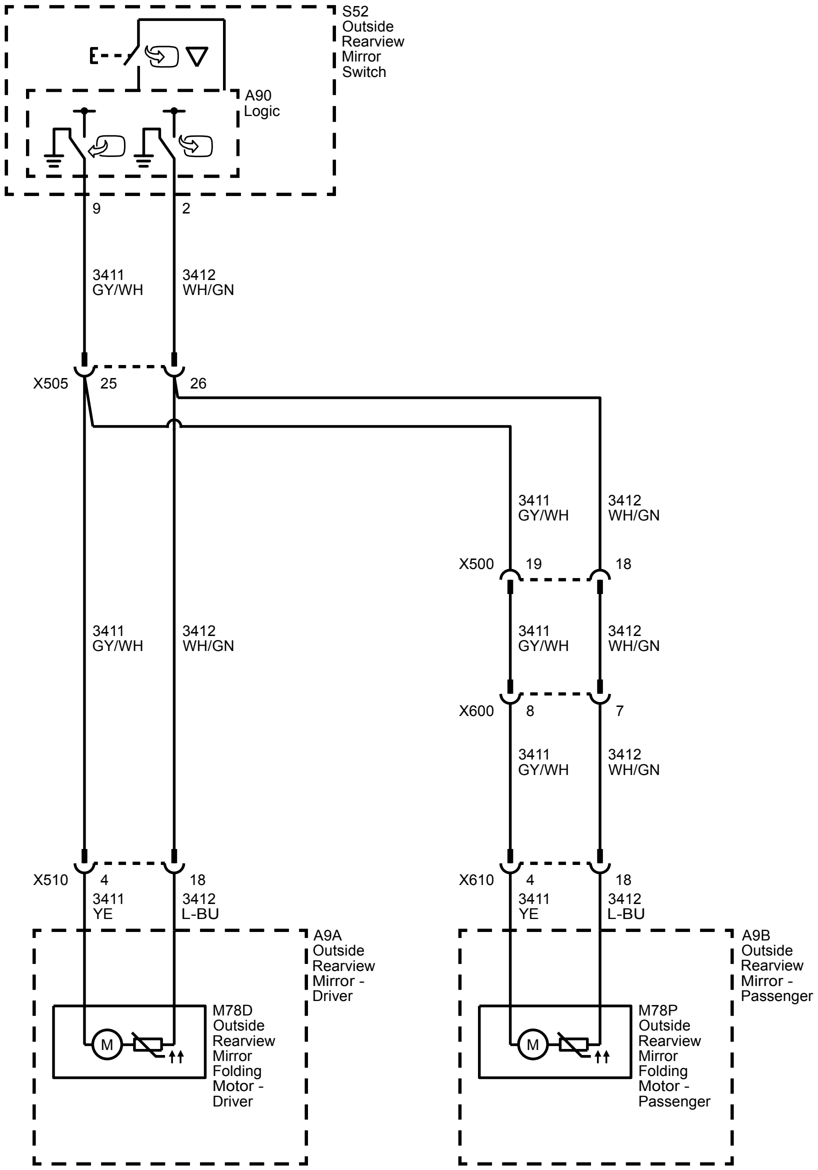
Passenger Position and Folding (A45)


B+
X51R
Fuse Block -
Instrument
Panel Right
F27DR
10A
X1
42
840
RD/BU
X600
11
840
RD/BU
X605
22
840
RD/BU
16
S52
Outside
Rearview
Mirror
Switch
K40D
Seat
Memory
Control
Module -
Driver
7530
GN/WH
9
B+
5V
A90
Logic
S79P
Window
Switch -
Passenger
13
5
4
11
6
2
3
8
1
7
DL3/DR4
DL3/DR4
3401
BU/YE
3399
YE/RD
3403
VT/WH
3400
BK/GN
3397
YE/VT
3398
WH
3396
GN/BK
3413
YE/WH
3414
BU/GY
X605
10
12
13
14
6
7
11
8
9
1250
BK
3401
BU/YE
3399
YE/RD
3403
VT/WH
3400
BK/GN
3397
YE/VT
3398
WH
3396
GN/BK
3413
YE/WH
3414
BU/GY
X610
14
17
7
3
9
12
10
4
18
3401
GN/WH
3399
L-GN
3403
GY
3400
BU
3397
OG/BK
3398
WH
3396
GN/WH
3413
L-BU
3414
YE
A9B
Outside
Rearview
Mirror -
Passenger
M
M
M77P
Outside
Rearview
Mirror
Motor -
Passenger
M
M78P
Outside
Rearview
Mirror
Folding
Motor -
Passenger
G312

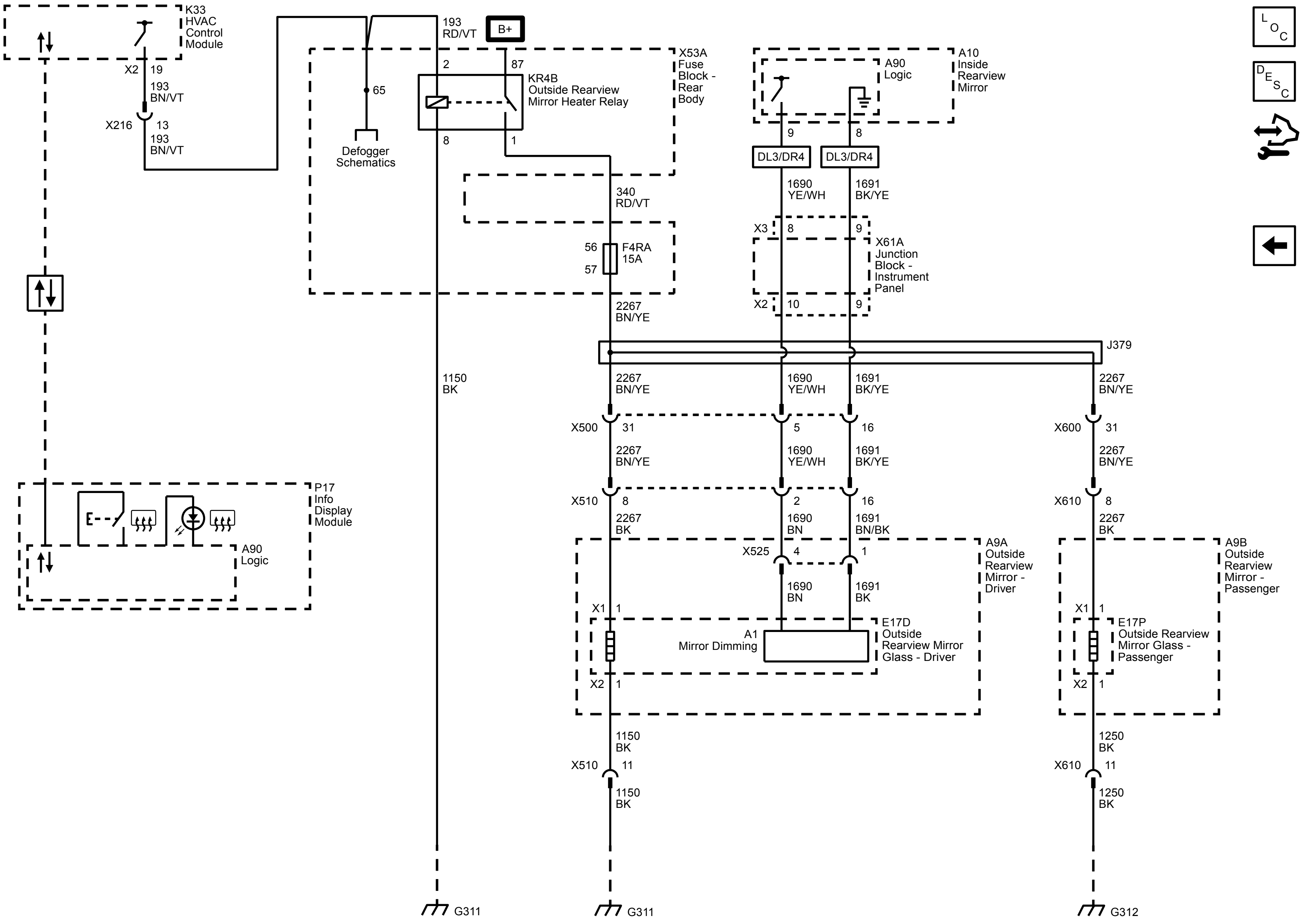
Position (without A45)


B+
X51L Fuse Block - Instrument Panel Left
F18DL 5A
X1 16
1940 RD/VT
12
S52 Outside Rearview Mirror Switch
DL3/DR4
B+
A90 Logic
J519
X500 40
L
R
o
7
3
10
1
8
4
5
3390 VT/BU
3391 YE/BN
3389 BN/BK
3397 YE/VT
3398 WH
3396 GN/BK
X505 22
6
7
5
43
44
42
1150 BK
X500 38 4 36
X600 38 4 36
X510 9 12 10
3390 OG/BK
3391 WH
3389 GN
X610 9 12 10
3397 OG/BK
3398 WH
3396 GN/WH
A9A Outside Rearview Mirror - Driver
M77D Outside Rearview Mirror Motor - Driver
M
A9B Outside Rearview Mirror - Passenger
M77P Outside Rearview Mirror Motor - Passenger
G311

Folding (DL3 or DR4 without A45)


S52
Outside
Rearview
Mirror
Switch
A90
Logic
9
2
3411
GY/WH
3412
WH/GN
X505
25
26
3411
GY/WH
3412
WH/GN
X500
19
18
3411
GY/WH
3412
WH/GN
X600
8
7
3411
GY/WH
3412
WH/GN
3411
GY/WH
3412
WH/GN
X510
4
18
3411
YE
3412
L-BU
X610
4
18
3411
YE
3412
L-BU
A9A
Outside
Rearview
Mirror -
Driver
A9B
Outside
Rearview
Mirror -
Passenger
M
M78D
Outside
Rearview
Mirror
Folding
Motor -
Driver
M
M78P
Outside
Rearview
Mirror
Folding
Motor -
Passenger

Dimming (DL3 or DR4) and Heating


K33
HVAC
Control
Module
X2 19
193
BN/VT
X216 13
193
BN/VT
193
RD/VT
B+
2
87
65
KR4B
Outside Rearview
Mirror Heater Relay
X53A
Fuse
Block -
Rear
Body
Defogger
Schematics
8
1
340
RD/VT
56
F4RA
15A
57
2267
BN/YE
1150
BK
A10
Inside
Rearview
Mirror
A90
Logic
9
8
DL3/DR4
DL3/DR4
1690
YE/WH
1691
BK/YE
X3 8 9
X61A
Junction
Block -
Instrument
Panel
X2 10 9
J379
2267
BN/YE
1690
YE/WH
1691
BK/YE
2267
BN/YE
X500 31
5
16
X600 31
2267
BN/YE
1690
YE/WH
1691
BK/YE
2267
BN/YE
P17
Info
Display
Module
A90
Logic
X510 8
2
16
X610 8
2267
BK
1690
BN
1691
BN/BK
2267
BK
X525 4
1
A9A
Outside
Rearview
Mirror -
Driver
A9B
Outside
Rearview
Mirror -
Passenger
1690
BN
1691
BK
X1 1
E17D
Outside
Rearview Mirror
Glass - Driver
A1
Mirror Dimming
X1 1
E17P
Outside Rearview
Mirror Glass -
Passenger
X2 1
X2 1
1150
BK
X510 11
1150
BK
1250
BK
X610 11
1250
BK
G311
G311
G312

Description and Operation

Automatic Day-Night Mirror Description and Operation

Inside Rearview Mirror with the Automatic Day-Night Feature System Operation

The inside rearview mirror uses 2 photocell sensors. One sensor is the headlight sensor, located on the face side of the mirror. The headlight sensor is used to determine light conditions present at the mirror face. The other sensor is the ambient light sensor, located on the rear of the mirror or windshield side. The ambient light sensor is used to determine the exterior light conditions. With a low exterior light condition detected, and a high light condition from behind the car, at the headlight sensor, the inside rearview mirror will automatically darken the face of the mirror.

In the daytime, the mirror is in a normal state because of the high exterior light condition that is indicated by the ambient light sensor. With the gear selector lever in the REVERSE position and the engine running, backup lamp supply voltage is supplied as an input to the inside rearview mirror. The mirror monitors this input to disable the automatic day-night feature. This allows the driver to see objects in the mirror clearly when backing up, even during the night.

Driver Outside Rearview Mirror with Automatic Day-Night System Operation (If Equipped)

The automatic day-night feature of the driver outside rearview mirror is controlled by the inside rearview mirror. The inside rearview mirror supplies control and low reference to the driver outside rearview mirror. At night, with the automatic day-night feature enabled, the driver outside rearview mirror will automatically darken with the inside rearview mirror to reduce glare from headlamps behind the vehicle.

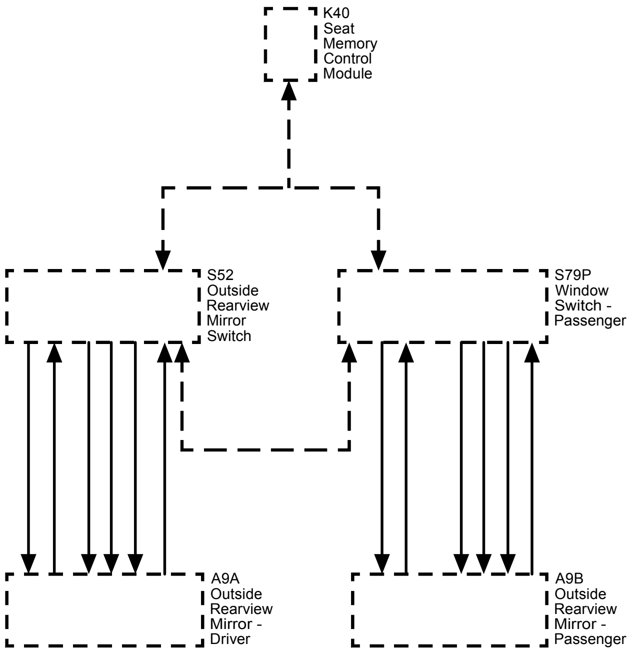
Outside Mirror Description and Operation (With A45)

Power Mirror System Components

The power mirror system consists of the following components:

- Memory Seat Control Module
- Outside Rearview Mirror Switch
- Passenger Window Switch
- Driver Outside Rearview Mirror
- Passenger Outside Rearview Mirror

Power Mirrors with A45 Block Diagram



Power Mirror System Controls

The outside mirror switch and passenger window switch are on a serial data circuit with the memory seat control module as the master. The mirror select and directional control switches are inputs to the memory seat module through the serial data circuit. When the memory seat module receives switch inputs from the outside mirror switch, mirror output commands are sent to the appropriate switch through the serial data circuit. The outside mirror switch and passenger window switch control the left and right outside rear view mirrors through bi-directional motor control circuits. The motor control circuits are floating while in an inactive state and the switches will apply power and ground to the control circuits as necessary to move the mirror in the commanded direction.

Mirror position is determined by both horizontal and vertical position sensors in each of the power mirrors. The outside mirror switch and passenger window switch supply a 5 V reference, low reference, and horizontal and vertical position signal circuits to these sensors. The signal circuits are referenced from 5 V by the switches and the signal circuit voltage levels represent the mirror positions. The mirror positions are sent to the memory seat module through the serial data circuit where they are stored for memory mirror operation. When the memory seat module receives a memory recall command, the memory seat module will send the go to position commands to the outside mirror switch and passenger window switch. The switches will then drive the appropriate mirror motors to the commanded position sensor settings.

Heated Mirrors

The heated mirrors are controlled through the rear defog relay. Whenever the rear window defogger is turned on battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

Outside Mirror Description and Operation (Without A45)

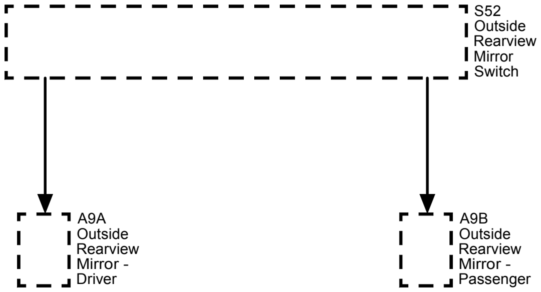
Power Mirror System Components

The power mirror system consists of the following components:

- Mirror direction switch — Controls the left, right, up and down movements of the mirrors
- Mirror select switch — Allows the operator to select the mirror to be moved
- Left outside mirror — Contains both the horizontal and vertical mirror motors
- Right outside mirror — Contains both the horizontal and vertical mirror motors

Each of the outside power mirrors contains 2 motors. The up-down motor operates the vertical directions and the left-right motor operates the horizontal directions. Each of the power mirror motors are internally circuit breaker protected.

Power Mirros Without A45 Block Diagram


S52 Outside Rearview Mirror Switch
A9A Outside Rearview Mirror - Driver
A9B Outside Rearview Mirror - Passenger

Power Mirror System Controls

The outside mirror switch incorporates a mirror select switch and a 4 position mirror direction switch.

The mirror select switch allows the driver to select the mirror to be moved by turning the switch to L position enabling the left outside mirror or turning the switch to R position enabling the right outside mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The outside mirror switch receives power through the battery positive voltage circuit from the underhood fuse block. The outside mirror switch also receives a constant ground.

The 4 positions of the direction switch have multiple switch contacts. When not in use, the directional contacts are isolated from any circuit. Each of the contacts are connected to opposing sides of the appropriate mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch, L or R.

If the mirror select switch is placed in the L position and the up switch is pressed, battery voltage will be supplied to the driver outside mirror vertical motor through the driver mirror motor up control circuit and return to the mirror switch through the driver mirror motor left/down control circuit, then to ground and the mirror will move up. If the down switch is pressed, the driver mirror motor left/down control circuit supplies battery voltage and the driver mirror motor up control circuit completes the path to the mirror switch, then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. Placing the mirror control switch in opposing positions, left/right or up/down, will reverse the voltage polarity to the mirror motor, utilizing the same circuits and the mirror will move accordingly.

Heated Mirrors

The heated mirrors are controlled through the rear defog relay. Whenever the rear window defogger is turned ON, battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

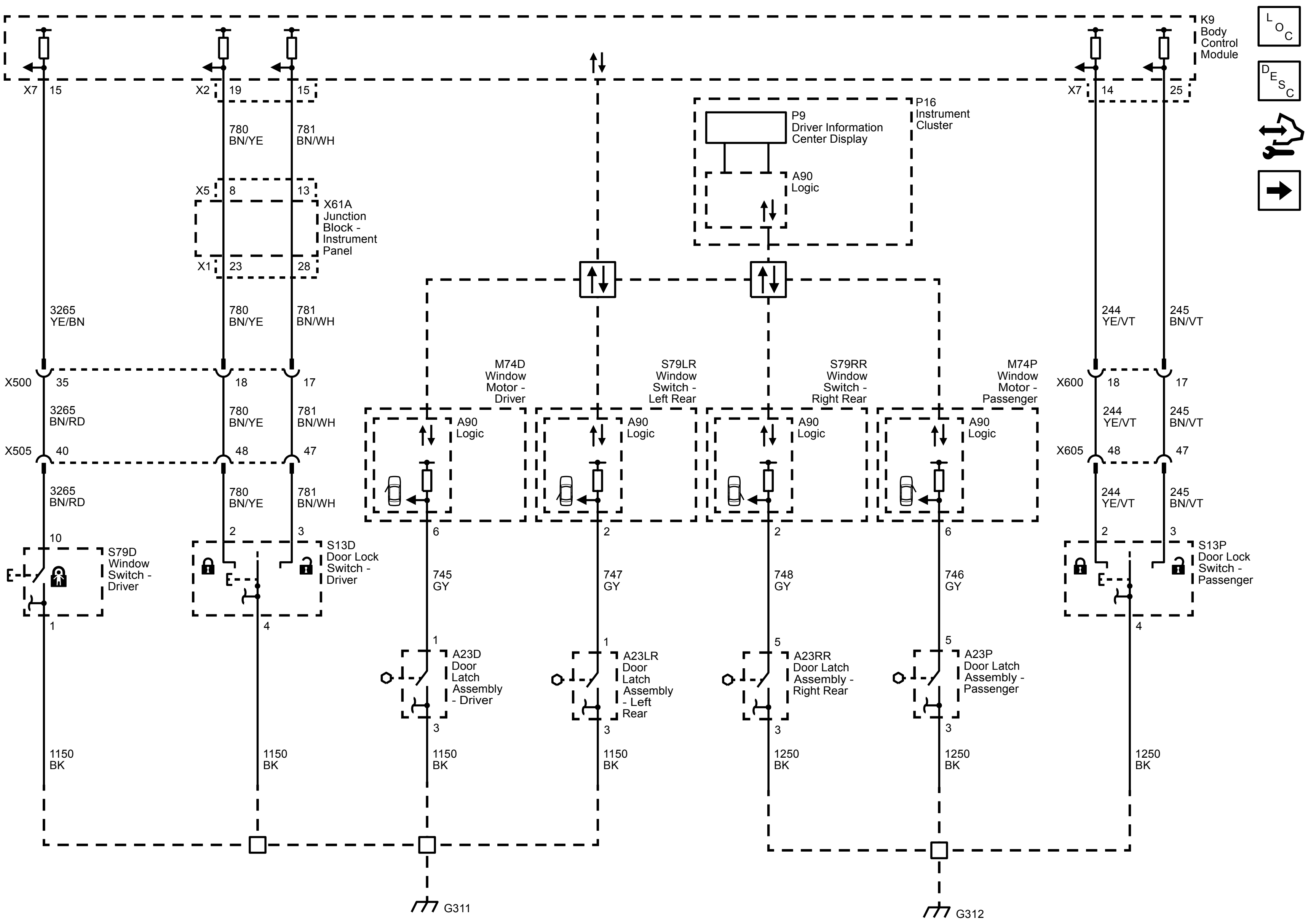
Body Systems

Vehicle Access

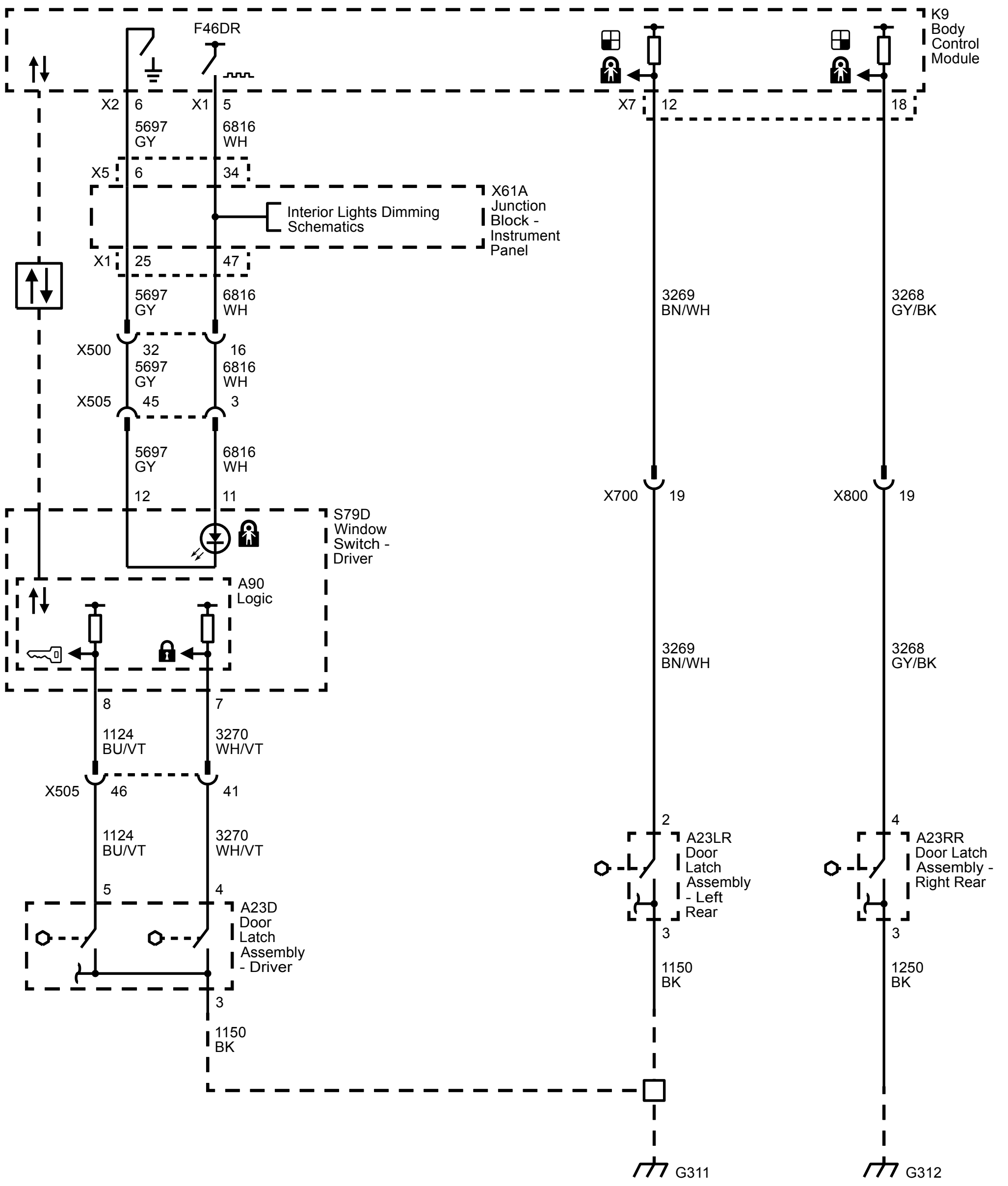
Schematic and Routing Diagrams

Door Lock/Indicator Schematics

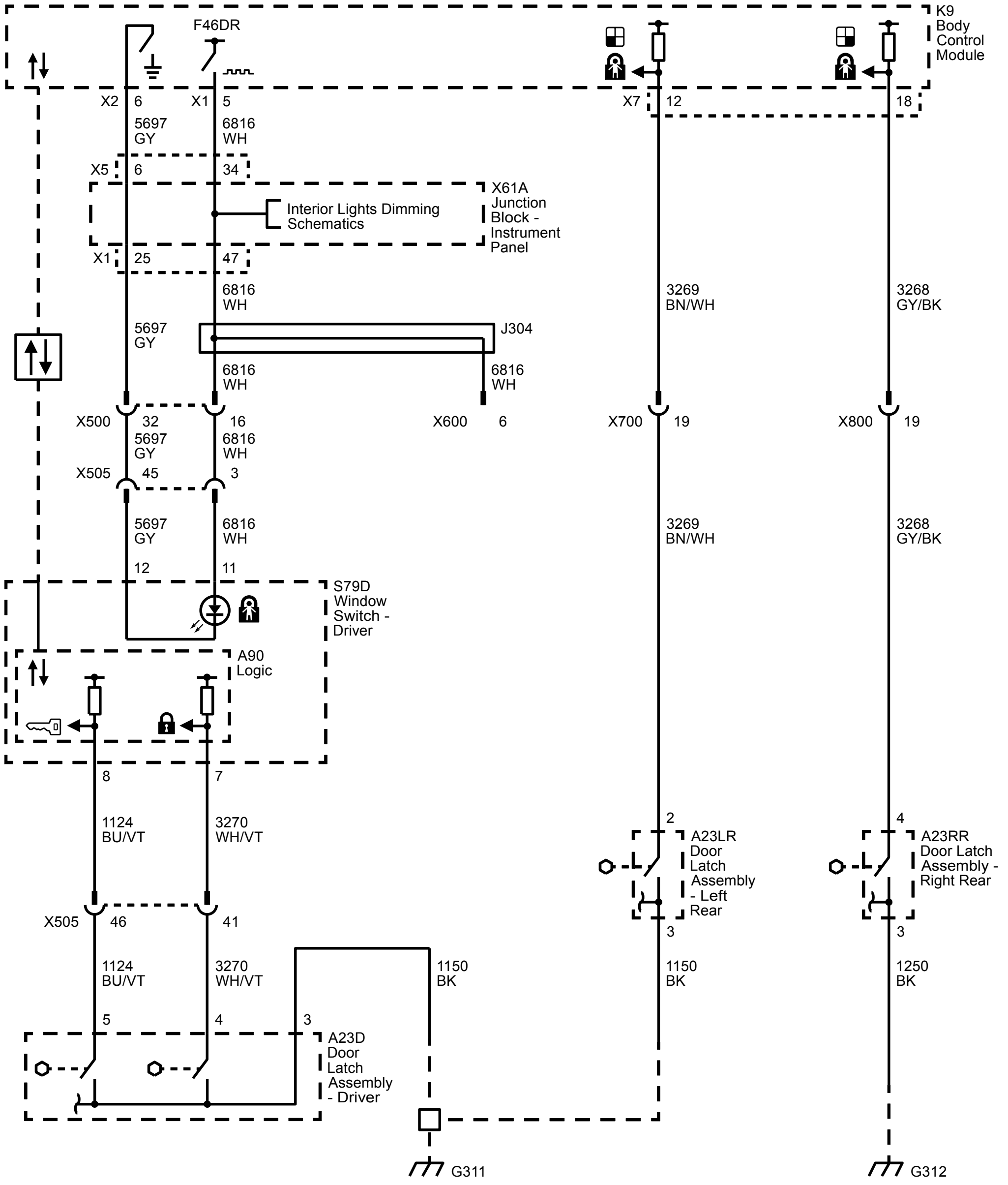
Door Lock and Ajar Switches


K9
Body
Control
Module
X7 15
X2 19
15
780
BN/YE
781
BN/WH
X5 8
13
X61A
Junction
Block -
Instrument
Panel
X1 23
28
3265
YE/BN
780
BN/YE
781
BN/WH
X500 35
18
17
3265
BN/RD
780
BN/YE
781
BN/WH
X505 40
48
47
3265
BN/RD
780
BN/YE
781
BN/WH
10
S79D
Window
Switch -
Driver
1
2
3
S13D
Door Lock
Switch -
Driver
4
1150
BK
1150
BK
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
M74D
Window
Motor -
Driver
A90
Logic
6
745
GY
S79LR
Window
Switch -
Left Rear
A90
Logic
2
747
GY
S79RR
Window
Switch -
Right Rear
A90
Logic
2
748
GY
M74P
Window
Motor -
Passenger
A90
Logic
6
746
GY
1
A23D
Door
Latch
Assembly
- Driver
3
1150
BK
1
A23LR
Door
Latch
Assembly
- Left
Rear
3
1150
BK
5
A23RR
Door Latch
Assembly -
Right Rear
3
1250
BK
5
A23P
Door Latch
Assembly -
Passenger
3
1250
BK
G311
G312
X7 14
25
244
YE/VT
245
BN/VT
X600 18
17
244
YE/VT
245
BN/VT
X605 48
47
244
YE/VT
245
BN/VT
2
3
S13P
Door Lock
Switch -
Passenger
4
1250
BK
LOC
DESC

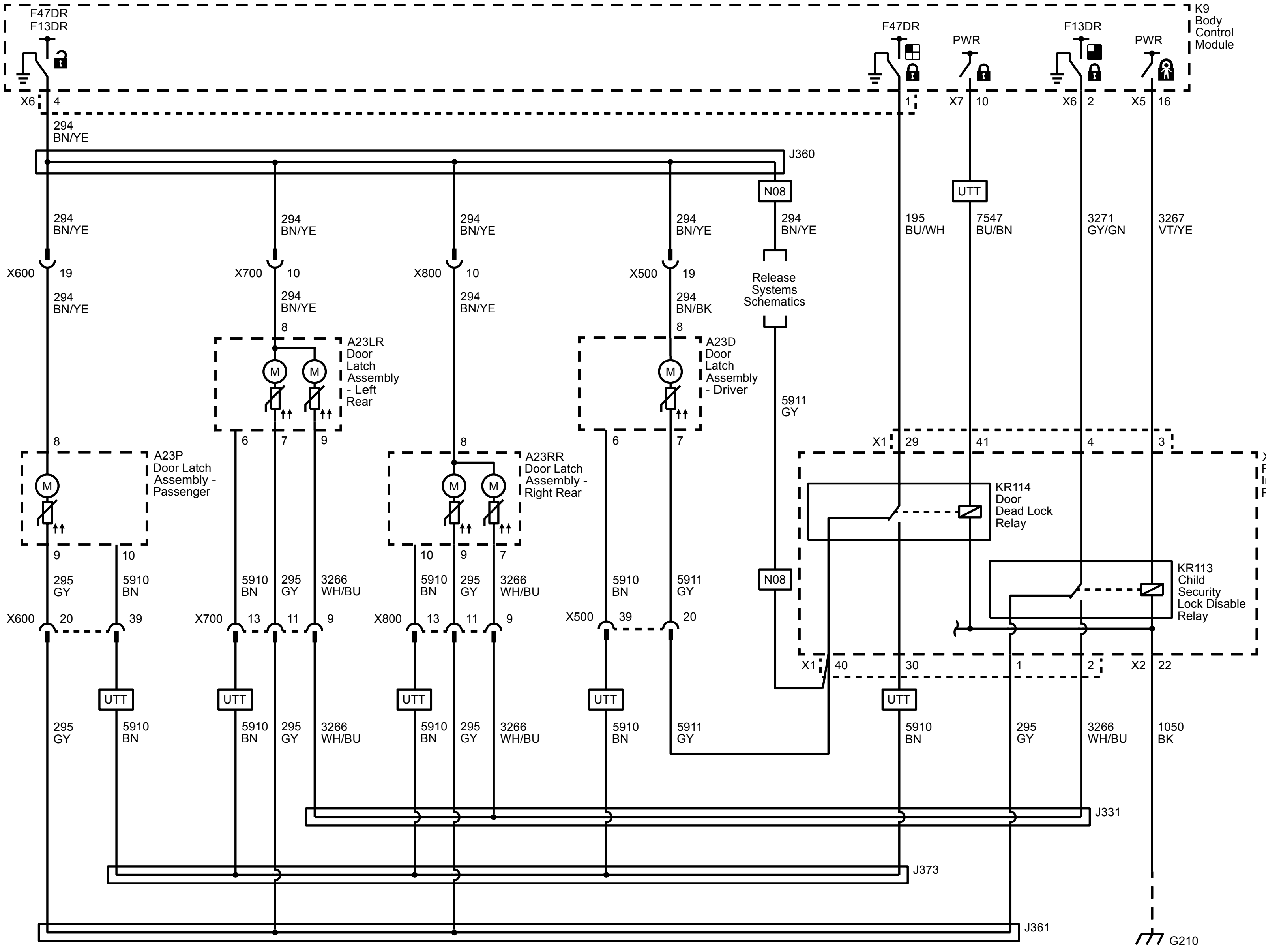
Lock and Child Lock Status (X88 Chevrolet or Z88 GMC)


K9
Body
Control
Module
F46DR
X2 6
X1 5
X7 12
18
5697
GY
6816
WH
X5 6
34
X61A
Junction
Block -
Instrument
Panel
Interior Lights Dimming
Schematics
X1 25
47
X500 32
16
X505 45
3
12
11
S79D
Window
Switch -
Driver
A90
Logic
8
7
1124
BU/VT
3270
WH/VT
X505 46
41
5
4
A23D
Door
Latch
Assembly
- Driver
3
1150
BK
3269
BN/WH
3268
GY/BK
X700 19
X800 19
2
A23LR
Door
Latch
Assembly
- Left
Rear
4
A23RR
Door Latch
Assembly -
Right Rear
3
1150
BK
1250
BK
G311
G312

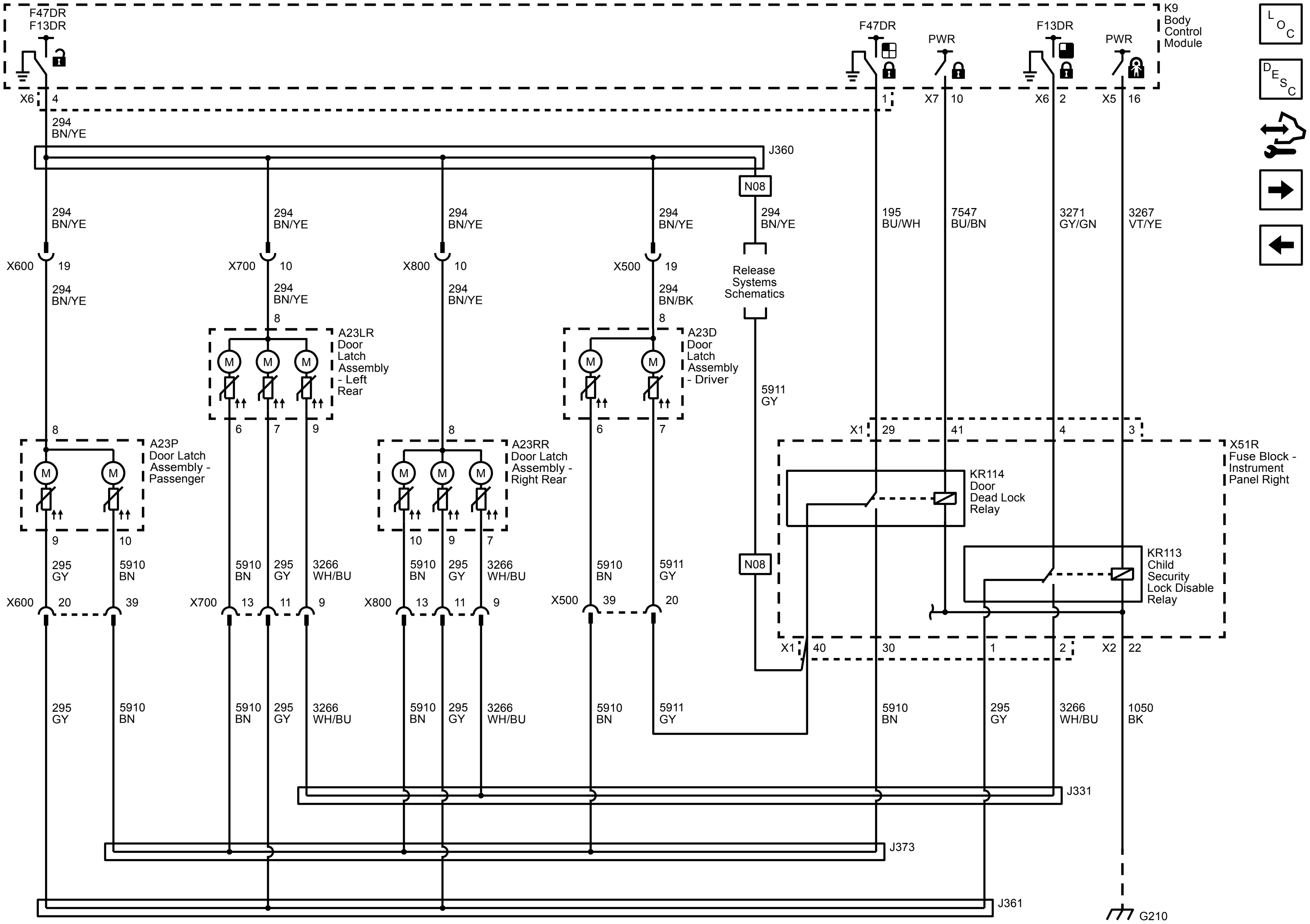
Lock and Child Lock Status (Z75 Cadillac)


K9
Body
Control
Module
F46DR
X2
6
X1
5
X7
12
18
5697
GY
6816
WH
X5
6
34
X61A
Junction
Block -
Instrument
Panel
Interior Lights Dimming
Schematics
X1
25
47
6816
WH
3269
BN/WH
3268
GY/BK
5697
GY
J304
6816
WH
6816
WH
X500
32
16
X600
6
X700
19
X800
19
5697
GY
6816
WH
X505
45
3
5697
GY
6816
WH
3269
BN/WH
3268
GY/BK
12
11
S79D
Window
Switch -
Driver
A90
Logic
8
7
1124
BU/VT
3270
WH/VT
2
A23LR
Door
Latch
Assembly
- Left
Rear
4
A23RR
Door Latch
Assembly -
Right Rear
X505
46
41
3
3
1124
BU/VT
3270
WH/VT
1150
BK
1150
BK
1250
BK
5
4
3
A23D
Door
Latch
Assembly
- Driver
G311
G312

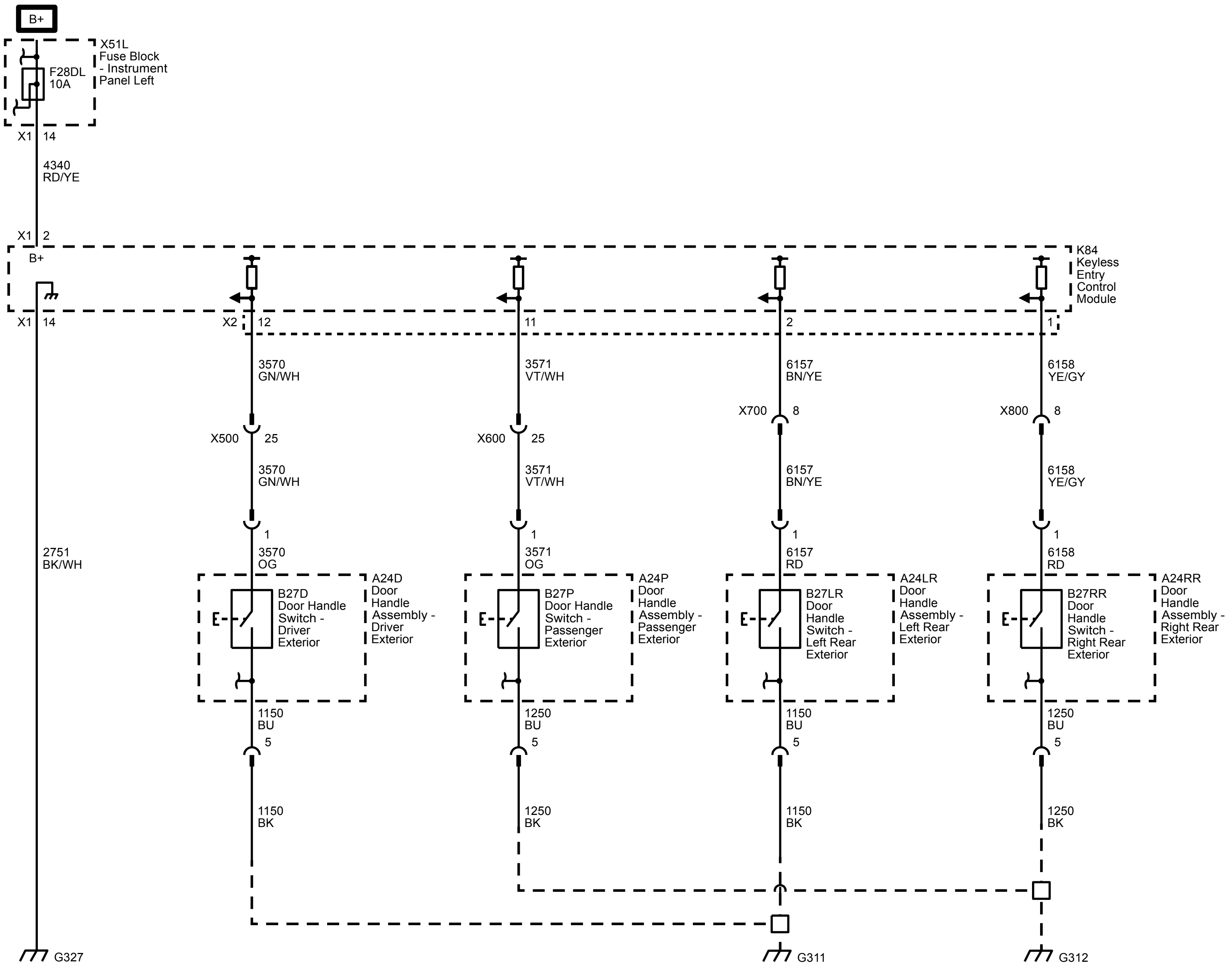
Actuators (without MBM or MBR)



F47DR
F13DR
X6
4
294
BN/YE
F47DR
PWR
F13DR
PWR
K9
Body
Control
Module
1
X7
10
X6
2
X5
16
J360
N08
294
BN/YE
195
BU/WH
UTT
7547
BU/BN
3271
GY/GN
3267
VT/YE
X600
19
X700
10
X800
10
X500
19
294
BN/BK
Release
Systems
Schematics
8
A23LR
Door
Latch
Assembly
- Left
Rear
A23D
Door
Latch
Assembly
- Driver
5911
GY
M
6
7
9
X1
29
41
4
3
A23P
Door Latch
Assembly -
Passenger
A23RR
Door Latch
Assembly -
Right Rear
X51R
Fuse Block -
Instrument
Panel Right
KR114
Door
Dead Lock
Relay
KR113
Child
Security
Lock Disable
Relay
10
295
GY
5910
BN
3266
WH/BU
5911
GY
N08
X600
20
39
X700
13
11
9
X800
13
11
9
X500
39
20
X1
40
30
1
2
X2
22
UTT
1050
BK
J331
J373
J361
G210

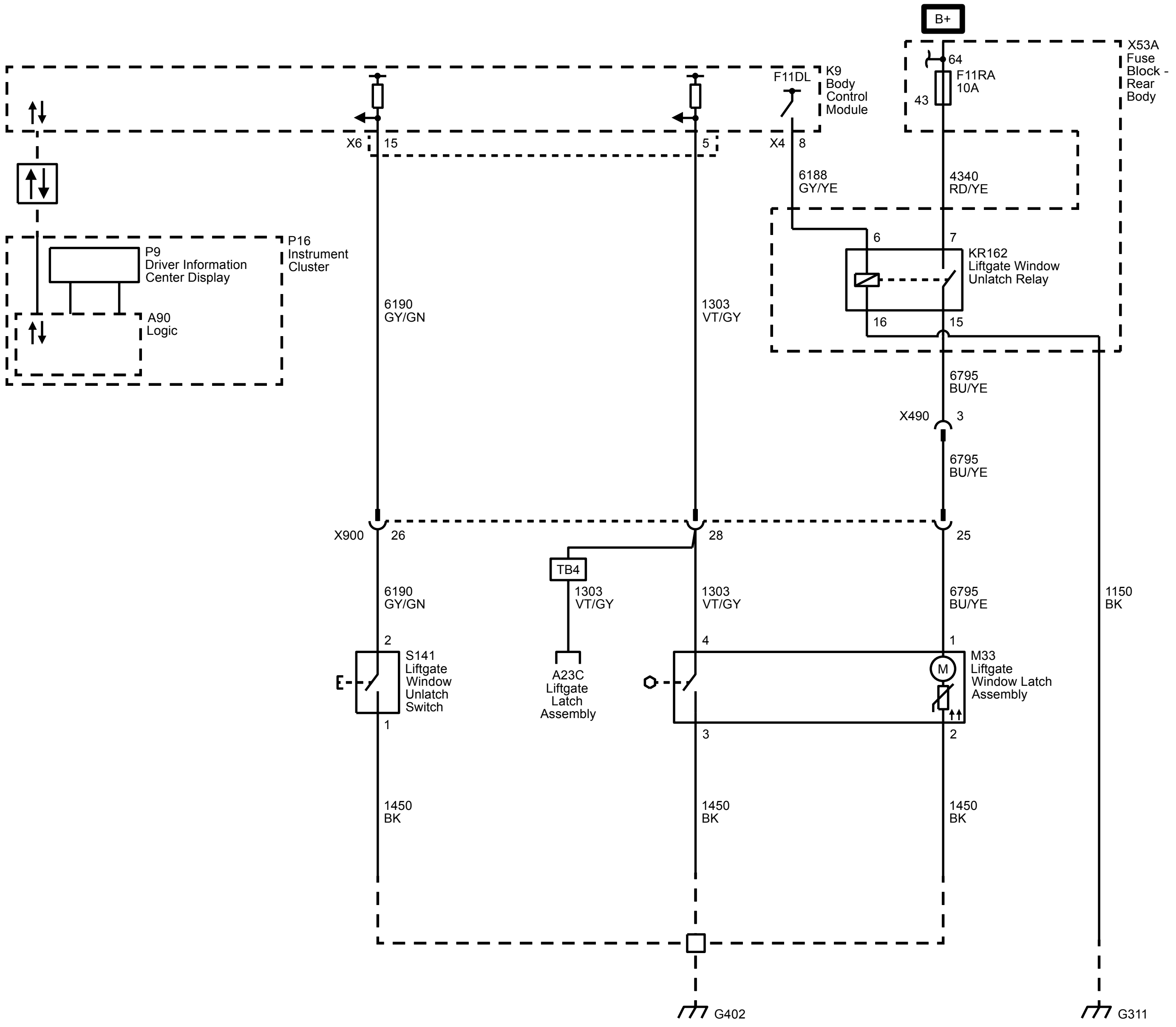

K9 Body Control Module
F47DR
F13DR
X6 4
294 BN/YE
J360
N08
PWR
X7 10
X6 2
X5 16
195 BU/WH
7547 BU/BN
3271 GY/GN
3267 VT/YE
X600 19
X700 10
X800 10
X500 19
294 BN/BK
Release Systems Schematics
A23LR Door Latch Assembly - Left Rear
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
A23RR Door Latch Assembly - Right Rear
5911 GY
X51R Fuse Block - Instrument Panel Right
KR114 Door Dead Lock Relay
KR113 Child Security Lock Disable Relay
X1 29 41 4 3
X1 40 30 1 2
X2 22
295 GY
5910 BN
3266 WH/BU
1050 BK
X600 20 39
X700 13 11 9
X800 13 11 9
X500 39 20
J331
J373
J361
G210
M

Door Handle Switches (ATH)

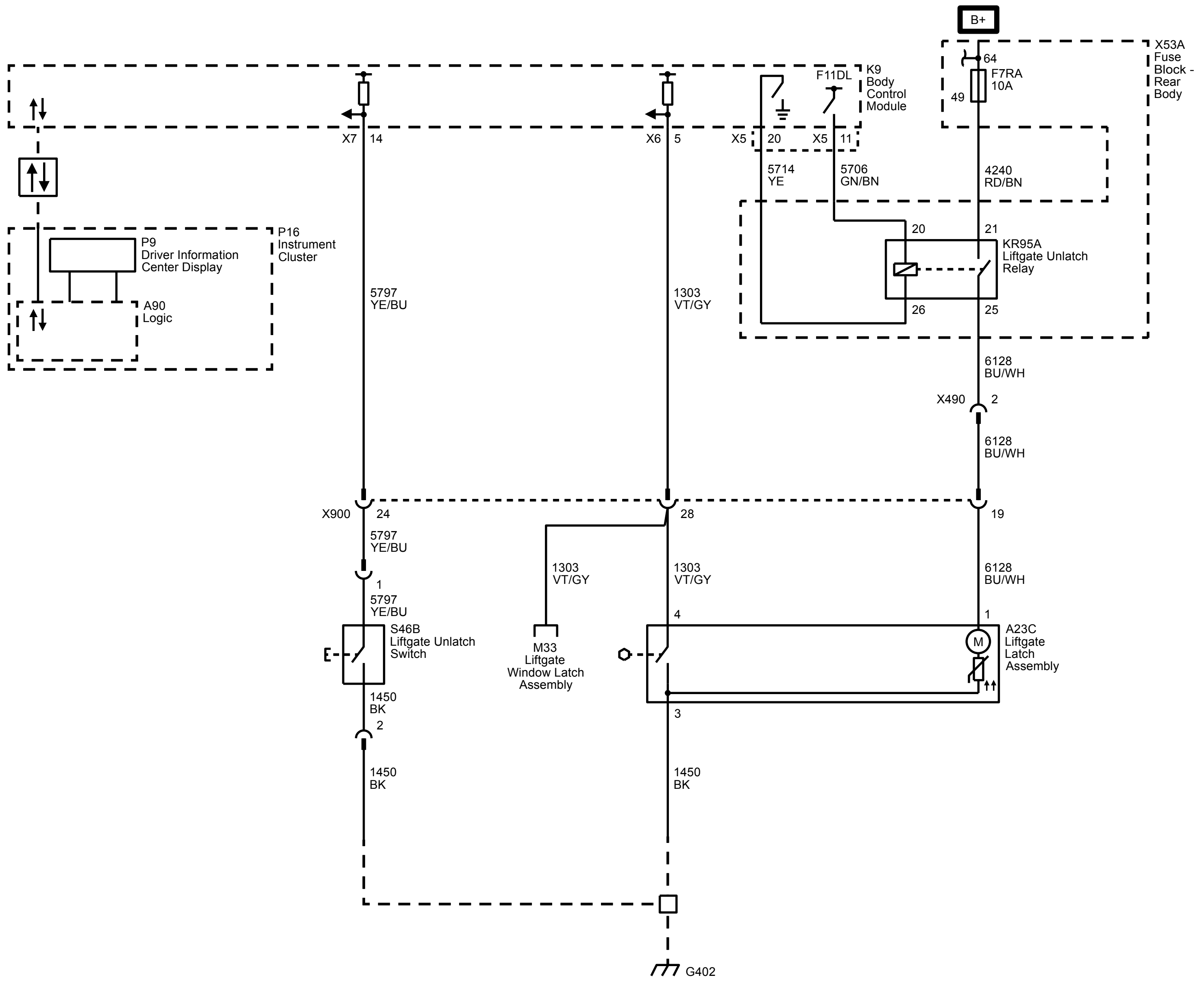

B+
X51L
Fuse Block
- Instrument
Panel Left
F28DL
10A
X1 14
4340
RD/YE
X1 2
B+
K84
Keyless
Entry
Control
Module
X1 14
X2 12
11
2
1
3570
GN/WH
3571
VT/WH
6157
BN/YE
6158
YE/GY
X700 8
X800 8
X500 25
X600 25
3570
GN/WH
3571
VT/WH
6157
BN/YE
6158
YE/GY
1
1
1
1
2751
BK/WH
3570
OG
3571
OG
6157
RD
6158
RD
A24D
Door
Handle
Assembly -
Driver
Exterior
B27D
Door Handle
Switch -
Driver
Exterior
A24P
Door
Handle
Assembly -
Passenger
Exterior
B27P
Door Handle
Switch -
Passenger
Exterior
A24LR
Door
Handle
Assembly -
Left Rear
Exterior
B27LR
Door
Handle
Switch -
Left Rear
Exterior
A24RR
Door
Handle
Assembly -
Right Rear
Exterior
B27RR
Door
Handle
Switch -
Right Rear
Exterior
1150
BU
5
1250
BU
5
1150
BU
5
1250
BU
5
1150
BK
1250
BK
1150
BK
1250
BK
G327
G311
G312

Release Systems Schematics

Liftglass Release

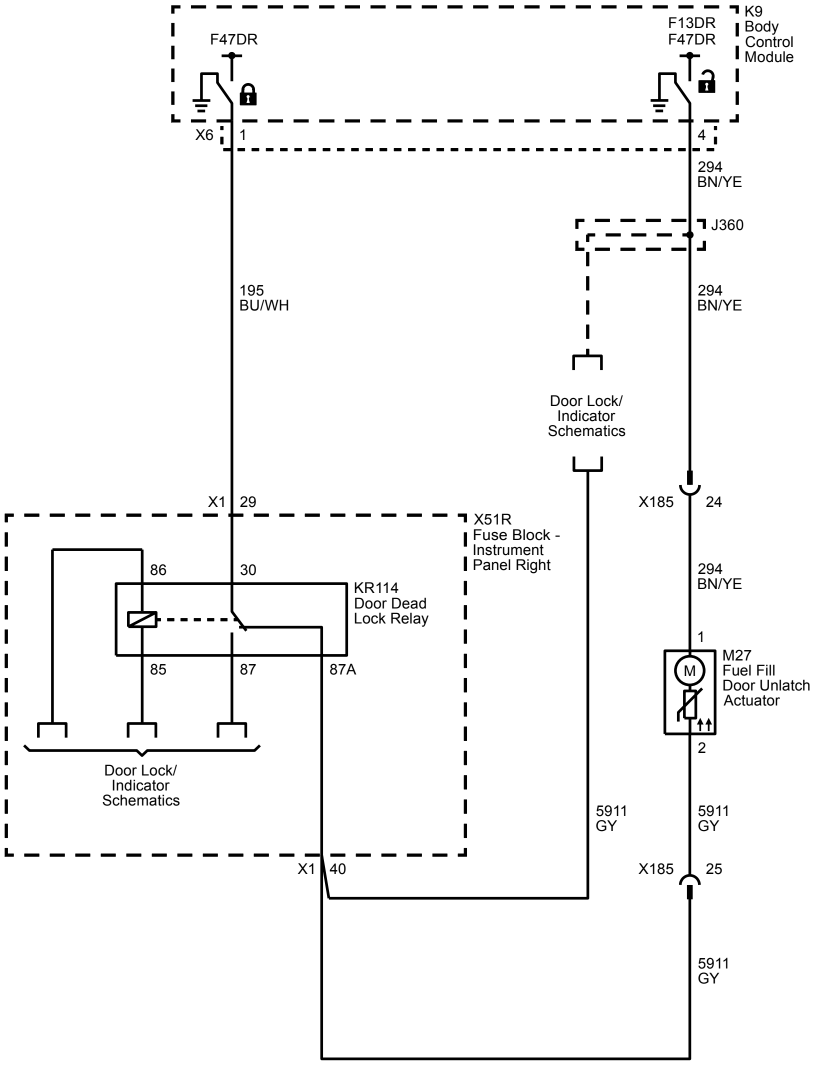

B+
X53A
Fuse
Block -
Rear
Body
64
F11RA
10A
43
F11DL
K9
Body
Control
Module
X6
15
5
X4
8
6188
GY/YE
4340
RD/YE
6
7
KR162
Liftgate Window
Unlatch Relay
16
15
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
6190
GY/GN
1303
VT/GY
6795
BU/YE
X490
3
6795
BU/YE
X900
26
28
25
TB4
6190
GY/GN
1303
VT/GY
1303
VT/GY
6795
BU/YE
1150
BK
2
S141
Liftgate
Window
Unlatch
Switch
1
A23C
Liftgate
Latch
Assembly
4
1
M
M33
Liftgate
Window Latch
Assembly
3
2
1450
BK
1450
BK
1450
BK
G402
G311

Liftgate Release (TB4)


B+
X53A
Fuse
Block -
Rear
Body
64
F7RA
10A
49
4240
RD/BN
K9
Body
Control
Module
F11DL
X7
14
X6
5
X5
20
X5
11
5714
YE
5706
GN/BN
20
21
KR95A
Liftgate Unlatch
Relay
26
25
6128
BU/WH
X490
2
6128
BU/WH
P9
Driver Information
Center Display
P16
Instrument
Cluster
A90
Logic
5797
YE/BU
1303
VT/GY
X900
24
28
19
5797
YE/BU
1
5797
YE/BU
S46B
Liftgate Unlatch
Switch
1303
VT/GY
M33
Liftgate
Window Latch
Assembly
1303
VT/GY
4
6128
BU/WH
1
M
A23C
Liftgate
Latch
Assembly
3
1450
BK
2
1450
BK
1450
BK
G402

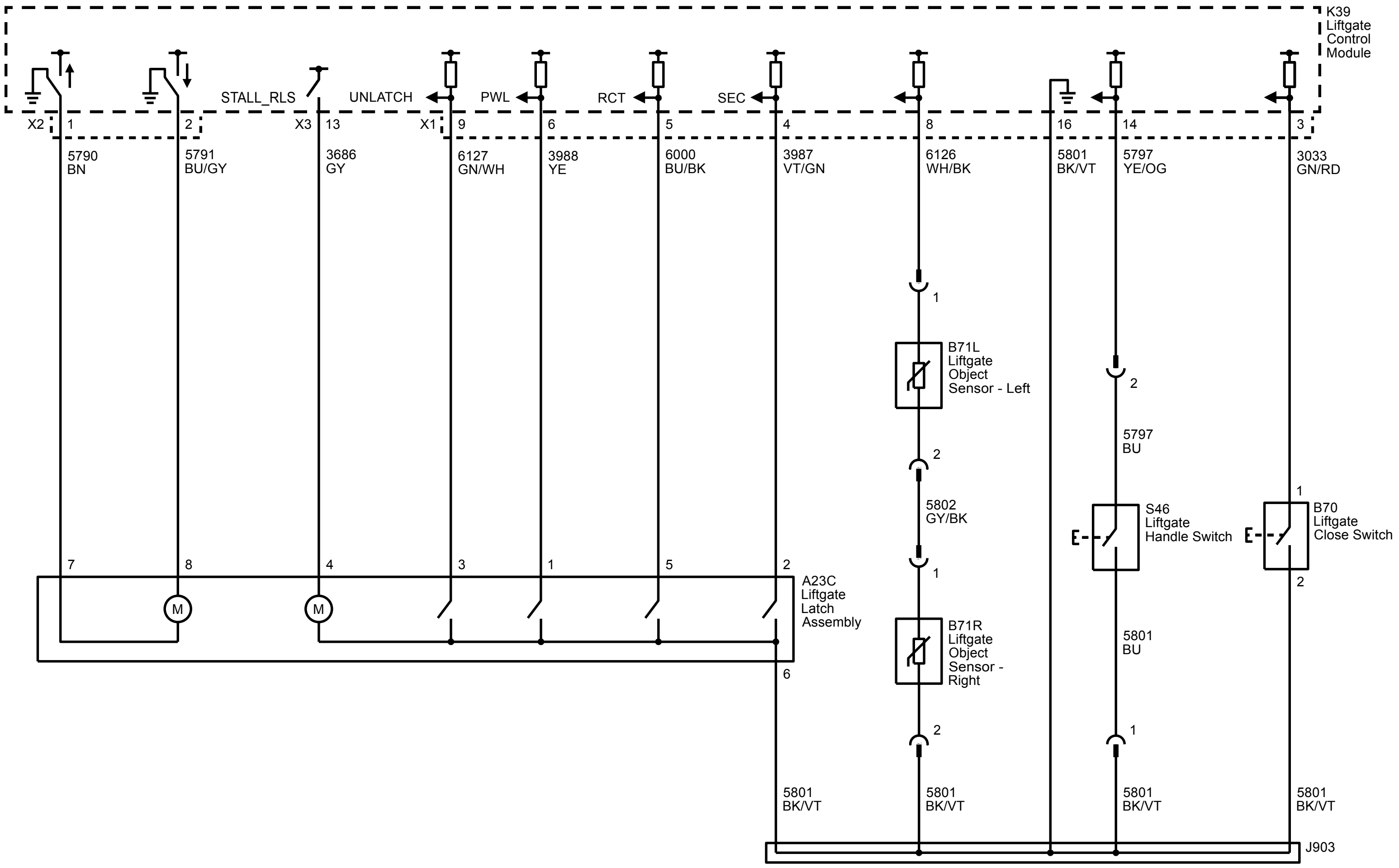
LOC
DESC

Fuel Door Lock (N08)

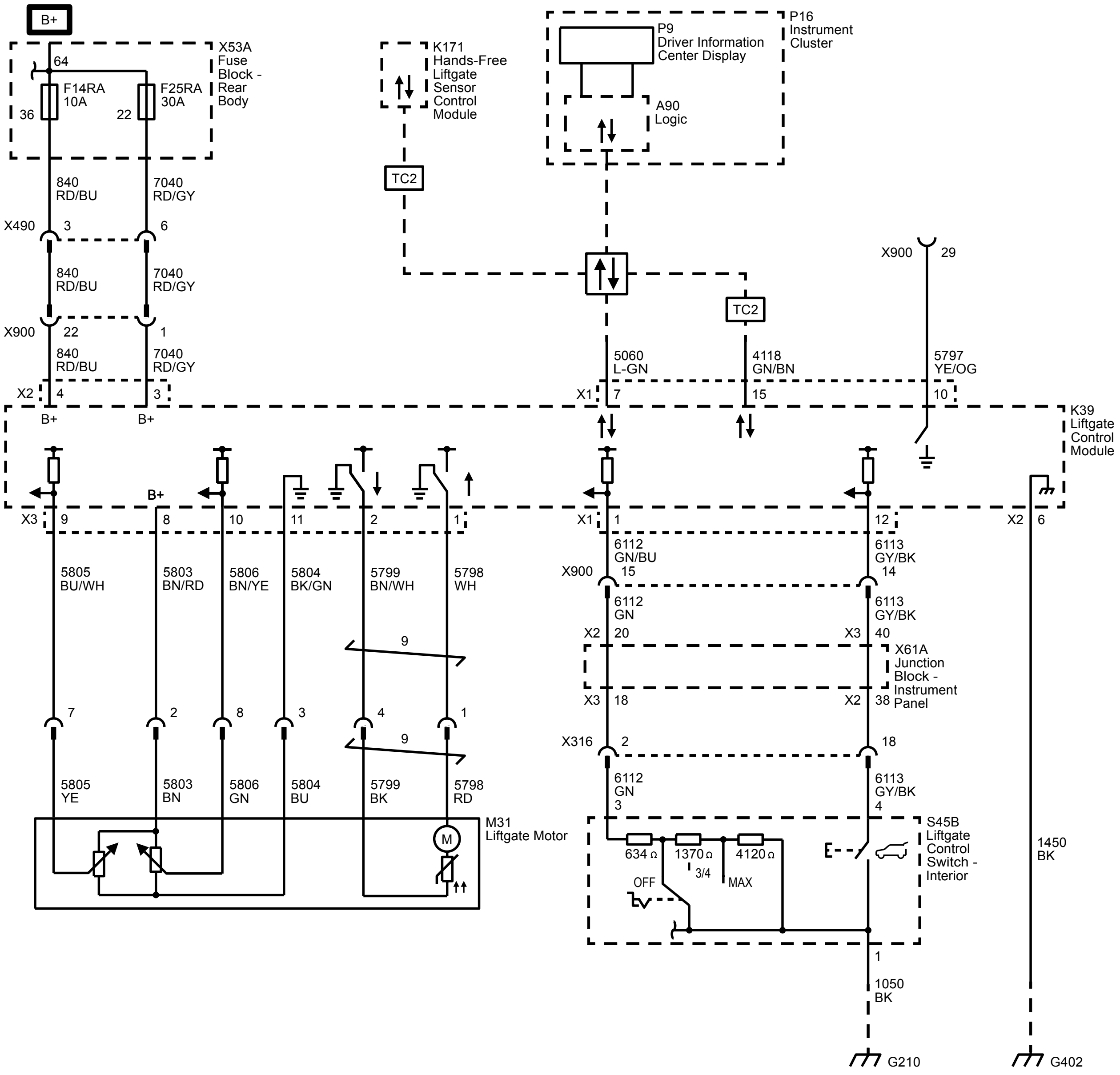

F47DR
F13DR
F47DR
K9
Body
Control
Module
X6
1
4
294
BN/YE
J360
294
BN/YE
195
BU/WH
Door Lock/
Indicator
Schematics
X1
29
X185
24
X51R
Fuse Block -
Instrument
Panel Right
86
30
KR114
Door Dead
Lock Relay
294
BN/YE
1
M
M27
Fuel Fill
Door Unlatch
Actuator
85
87
87A
2
Door Lock/
Indicator
Schematics
5911
GY
5911
GY
X1
40
X185
25
5911
GY

LOC
DESC

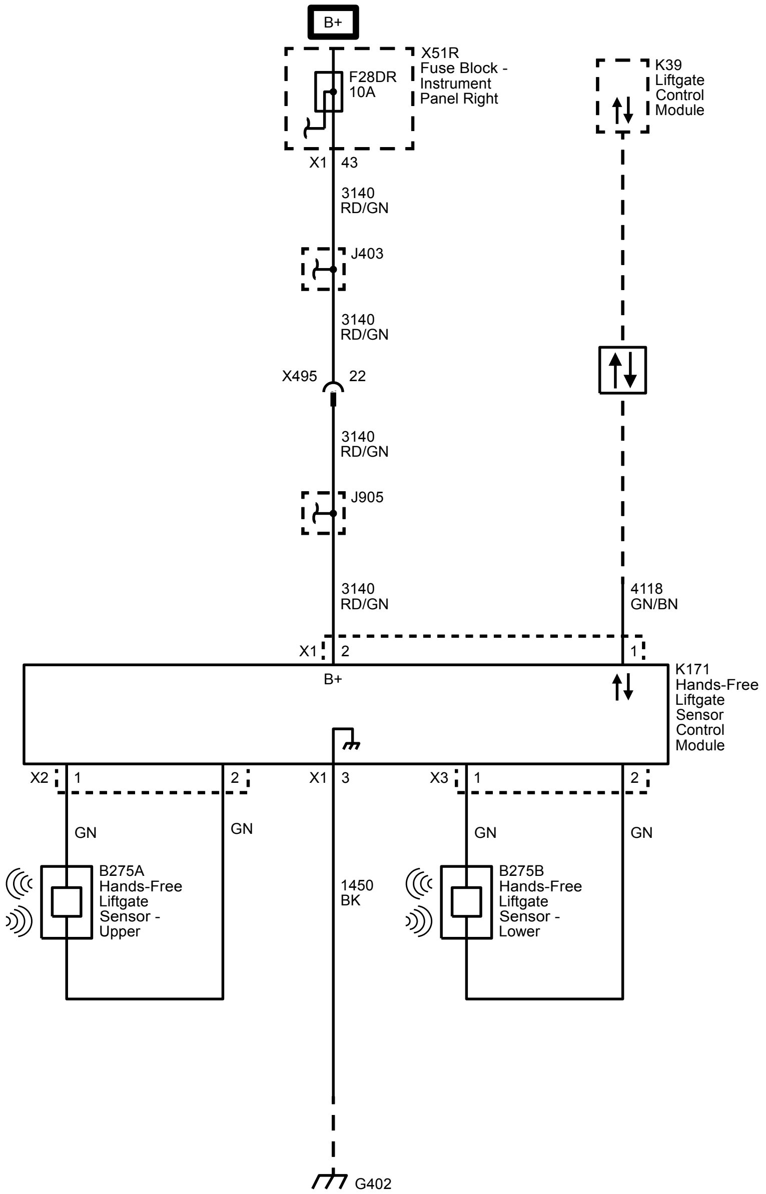
Liftgate Motors (TB5)


K39
Liftgate
Control
Module
STALL_RLS
UNLATCH
PWL
RCT
SEC
X2
1
2
X3
13
X1
9
6
5
4
8
16
14
3
5790
BN
5791
BU/GY
3686
GY
6127
GN/WH
3988
YE
6000
BU/BK
3987
VT/GN
6126
WH/BK
5801
BK/VT
5797
YE/OG
3033
GN/RD
1
B71L
Liftgate
Object
Sensor - Left
2
5802
GY/BK
1
B71R
Liftgate
Object
Sensor -
Right
2
2
5797
BU
S46
Liftgate
Handle Switch
5801
BU
1
1
B70
Liftgate
Close Switch
2
7
8
4
3
1
5
2
M
M
A23C
Liftgate
Latch
Assembly
6
5801
BK/VT
5801
BK/VT
5801
BK/VT
5801
BK/VT
J903

Liftgate Controls (TB5)


B+
X53A Fuse Block - Rear Body
64
F14RA 10A
F25RA 30A
36
22
840 RD/BU
7040 RD/GY
X490
3
6
840 RD/BU
7040 RD/GY
X900
22
1
840 RD/BU
7040 RD/GY
X2
4
3
B+
B+
K171 Hands-Free Liftgate Sensor Control Module
TC2
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
TC2
5060 L-GN
4118 GN/BN
X900
29
5797 YE/OG
X1
7
15
10
K39 Liftgate Control Module
B+
X3
9
8
10
11
2
1
X1
1
12
X2
6
5805 BU/WH
5803 BN/RD
5806 BN/YE
5804 BK/GN
5799 BN/WH
5798 WH
9
7
2
8
3
4
1
9
5805 YE
5803 BN
5806 GN
5804 BU
5799 BK
5798 RD
M
M31 Liftgate Motor
6112 GN/BU
6113 GY/BK
X900
15
14
6112 GN
6113 GY/BK
X2
20
X3
40
X61A Junction Block - Instrument Panel
X3
18
X2
38
X316
2
18
6112 GN
3
6113 GY/BK
4
S45B Liftgate Control Switch - Interior
634 Ω
1370 Ω
4120 Ω
3/4
OFF
MAX
1
1050 BK
1450 BK
G210
G402

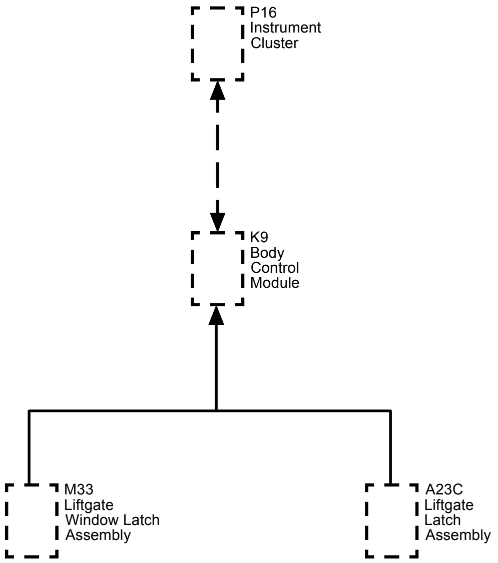
Hands Free Liftgate Controls (TC2)


B+
X51R
Fuse Block -
Instrument
Panel Right
F28DR
10A
X1
43
3140
RD/GN
J403
3140
RD/GN
X495
22
3140
RD/GN
J905
3140
RD/GN
K39
Liftgate
Control
Module
4118
GN/BN
X1
2
1
B+
K171
Hands-Free
Liftgate
Sensor
Control
Module
X2
1
2
X1
3
X3
1
2
GN
GN
GN
GN
B275A
Hands-Free
Liftgate
Sensor -
Upper
1450
BK
B275B
Hands-Free
Liftgate
Sensor -
Lower
G402

Description and Operation

Liftgate Ajar Indicator Description and Operation

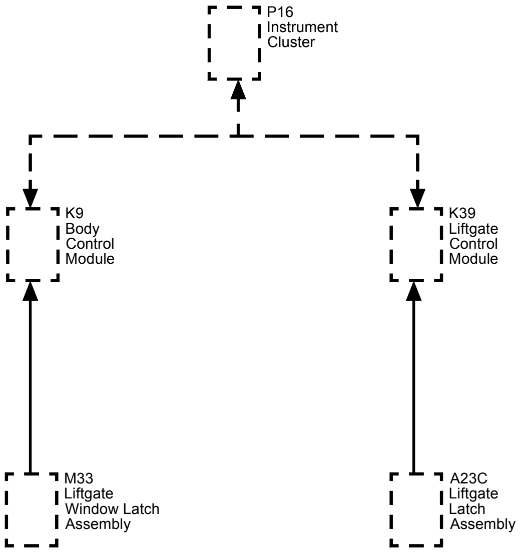
Liftgate-Liftglass Ajar Indicator without TB5


P16
Instrument
Cluster
K9
Body
Control
Module
M33
Liftgate
Window Latch
Assembly
A23C
Liftgate
Latch
Assembly

Manual Liftgate

The body control module supplies a 12V signal to the liftgate/liftglass ajar signal circuit. The liftgate and liftglass ajar switches are normally open when the liftgate or liftglass is fully closed. When the liftgate or liftglass is opened, the ajar switch contacts close providing a path to ground. The instrument cluster receives a serial data message from the body control module indicating the liftgate ajar status and the driver information center will display the REAR ACCESS OPEN message.

Liftgate-Liftglass Ajar Indicator with TB5


P16
Instrument
Cluster
K9
Body
Control
Module
K39
Liftgate
Control
Module
M33
Liftgate
Window Latch
Assembly
A23C
Liftgate
Latch
Assembly

Power Liftgate

The driver information center illuminates the Rear Access Open message when the liftgate module detects the liftgate ratchet and the liftgate sector switches are closed to ground indicating the liftgate is open. The instrument cluster receives a serial data message from the liftgate module indicating the liftgate ajar status.

The body control module supplies a 12V signal to the liftglass ajar circuit. The liftglass ajar switch is normally open when the liftglass is fully closed. When the liftglass is opened, the ajar switch contacts close providing a path to ground. The instrument cluster receives a serial data message from the body control module indicating the liftgate ajar status and the driver information center will display the REAR ACCESS OPEN message.

Liftgate Description and Operation

System Description

The power liftgate system consists of the following components:

- Liftgate control module
- Liftgate position sensor (Part of the power assist actuator)
- Interior liftgate rotary switch
- Liftgate handle switch
- Liftgate close switch
- Liftgate latch assembly
- Liftgate power assist actuator
- Left and right liftgate object sensors
- Hands free liftgate sensor control module
- Upper and lower liftgate hands free sensors
- Keyless entry transmitter
- Remote control door lock receiver

Operation

The power liftgate can be commanded to power open and power close by the following methods:

- An open or close command from the interior liftgate rotary switch
- An open command from the liftgate handle switch
- A close command from the liftgate close switch
- An open or close request by a signal from the keyless entry transmitter to the remote control door lock receiver
- The kicking motion of a foot and lower leg under the center of the lower rear fascia

The liftgate control module will respond to a request by commanding the liftgate latch to release the liftgate and activate the liftgate motor in the liftgate power assist actuator and raise the liftgate to the open position or to lower and cinch the liftgate closed.

Power Latch

The liftgate control module continuously monitors power liftgate operation and calculates its location and direction of travel from an external liftgate position sensor. One input returns the position of the liftgate relative to the x-axis and y-axis. The liftgate control module then uses these 2 inputs together to calculate its angle relative to the liftgate. The interior liftgate rotary switch contains resistors which will incrementally drop the voltage level in the signal circuit as the switch rotated from the OFF position to the ¾ position or the MAX position, the liftgate control module will detect the change in voltage and will monitor the x-axis and y-axis as the liftgate is in motion to stop the liftgate parallel to the vehicle roof if the rotary switch is in the ¾ setting or to open fully if the rotary switch is in the MAX setting.

The liftgate latch assembly is a bi-directional motor and latch or unlatch operation is the result of the direction of the motor rotation. The liftgate control module controls the liftgate latch assembly through the control circuits by supplying power and ground in the appropriate polarity. The motor control circuits are monitored by the liftgate control module prior to activation for a high or low condition and during motor operation for an insufficient current flow condition. The ratchet, pawl, and sector switches are part of the liftgate latch assembly and are used by the liftgate control module to determine the state of the latch during the process of latching or unlatching. Each of the latch switch signal circuits are supplied battery voltage and monitored within the liftgate control module. The latch switches share a common low reference circuit from the liftgate control module and when the switch contacts close the signal circuit goes low and the liftgate control module determines the switch to be active.

The liftgate handle switch and liftgate close switch signal circuit are each supplied battery voltage by the liftgate control module. The switches share a common low reference circuit from the liftgate control module and when the switch is pressed the contacts close and the appropriate signal circuit goes low, the liftgate control module will detect the voltage drop and will command the liftgate to release and power open or to power close.

For vehicles without the optional passive keyless entry, when the liftgate handle switch is pressed, the liftgate control module will check the status of the vehicle door locks by sending a serial data message to the body control module requesting the door lock status. If the vehicle doors are locked, the liftgate control module will ignore the signal from the liftgate handle switch. If the vehicle doors are unlocked, the liftgate control module will permit the liftgate to unlatch and power open when the liftgate handle switch is pressed.

For vehicles with the optional passive keyless entry system, the keyless entry control module monitors the proximity of the keyless entry transmitter. If the liftgate handle switch is pressed and the keyless entry transmitter is within range, the keyless entry control module will send a serial data message to the liftgate control module indicating the presence of the keyless entry transmitter and the liftgate control module will permit the liftgate to unlatch and power open. If the doors are locked and the keyless entry transmitter is not within range, the liftgate control module will ignore the signal from the liftgate handle switch.

Liftgate Hands Free Sensor

The sensors are located behind the rear fascia at the bottom center and is designed to detect the motion of the operator’s foot by way of a kicking motion. When the keyless entry transmitter is within 3 feet (1 meter) of the liftgate and the operator kicks his or her foot under the center of the rear fascia, the sensors will detect the motion of the foot and the lower leg and if the procedure has been performed correctly the hands free liftgate sensor control module will send a serial data message to the liftgate control module. The tail lamps will then flash to indicate that the command has been received and the liftgate will power open or power close.

Object Detection

The power liftgate system uses an object detection method which consists of object sensors fixed to both sides of the liftgate near the seal area. The object sensors consist of an internal fixed resistor and normally open switch contacts which when closed will bypass the resistor. The signal circuit is supplied 5 V through a resistor and monitored within the liftgate control module, and during normal power liftgate operation the signal circuit should remain a fixed value. When an object presses one of the sensors the contacts close and the resistor is bypassed causing the signal circuit voltage at the module to go low. If the liftgate is being power closed at that time, the liftgate control module will command the power liftgate to reverse direction. All power close liftgate operations will be suspended until the obstruction pressing on the object sensor is removed

Manual Liftgate Operation

The operator has the option to disable the power liftgate operations by selecting the “OFF” position on the interior liftgate rotary switch. The releasing and cinching for the liftgate latch will function normally, however, the operator must manually pull the liftgate open and push the liftgate closed. All power liftgate operations will be suspended for as long as the liftgate rotary switch is in the “OFF” position.

Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

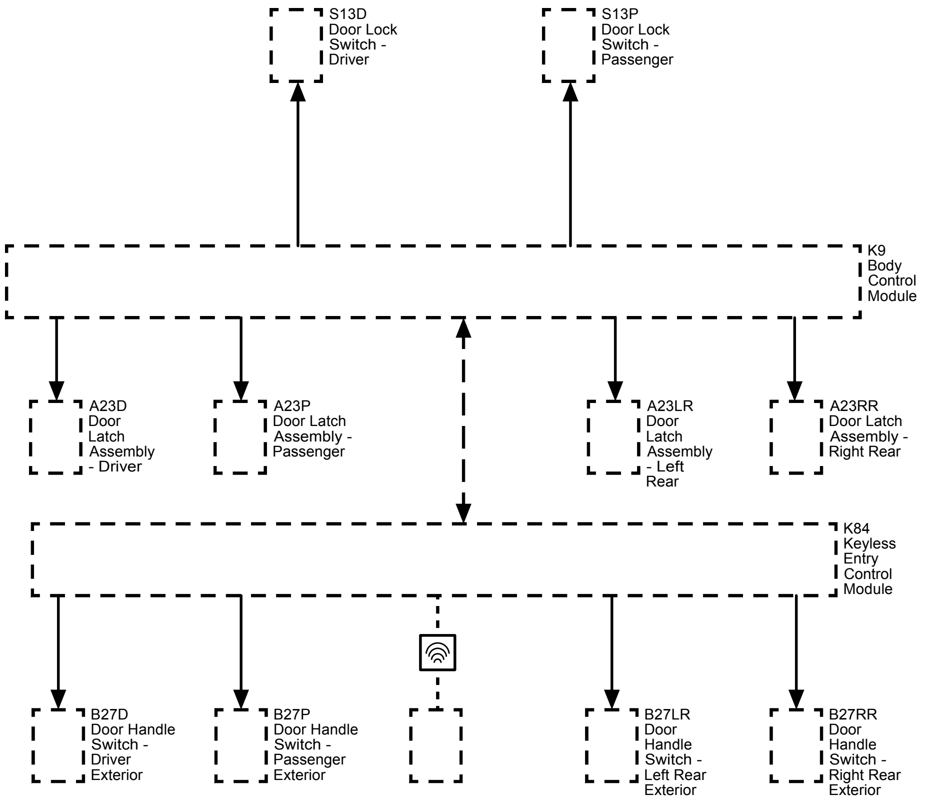
- Driver door lock switch
- Driver door key cylinder switch (Part of the driver door latch assembly)
- Child door lockout switch (Part of the driver window switch)
- Passenger door lock switch
- Front door lock actuators
- Rear door lock actuators
- Body control module (BCM)
- Keyless entry control module
- Exterior door handle switches
- Right instrument panel fuse block (Contains child security lock disable PCB relay and/or door dead lock PCB relay)

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A door lock switch LOCK or UNLOCK activation
- A key cylinder switch unlock activation
- A keyless entry transmitter activation
- Pressing the driver door lock plunger flush with the door panel will lock all doors

Power Door Locks Block Diagram


S13D Door Lock Switch - Driver
S13P Door Lock Switch - Passenger
K9 Body Control Module
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear
K84 Keyless Entry Control Module
B27D Door Handle Switch - Driver Exterior
B27P Door Handle Switch - Passenger Exterior
B27LR Door Handle Switch - Left Rear Exterior
B27RR Door Handle Switch - Right Rear Exterior

Door Lock Operation

When the doors have been locked, the passengers inside the vehicle can still open the doors by using the interior door handle (except vehicles with the child locks engaged or dead locks engaged). Pulling the interior door handle the first time will unlock the door and pulling the interior door handle a second time will unlatch the door.

The BCM supplies a 12 volt signal to the lock and unlock signal circuits of the driver and passenger door lock switches. When the appropriate switch is pressed, a contact within the door lock switch closes providing a ground path for the signal circuit. The BCM will detect the voltage drop in the signal and will command the doors to perform the lock or unlock functions.

The driver door latch contains 2 internal switches and 2 signal circuits that are monitored by the BCM. One switch is controlled by the driver key cylinder switch, when the key is turned to the unlock position, a switch will close and the BCM will command the remaining doors to UNLOCK. The other switch is controlled by the driver door lock plunger, pressing the plunger flush with the door panel will close the switch, the switch will close and the BCM will command the remaining doors to LOCK

The BCM may also receive a LOCK or UNLOCK command from the keyless entry control module, refer to Keyless Entry System Description and Operation (With ATH)Keyless Entry System Description and Operation (Without ATH) for information on the keyless entry system

The BCM, upon receipt of a lock switch lock or unlock signal, will supply voltage to the door lock actuator lock or unlock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the doors will then lock or unlock as commanded.

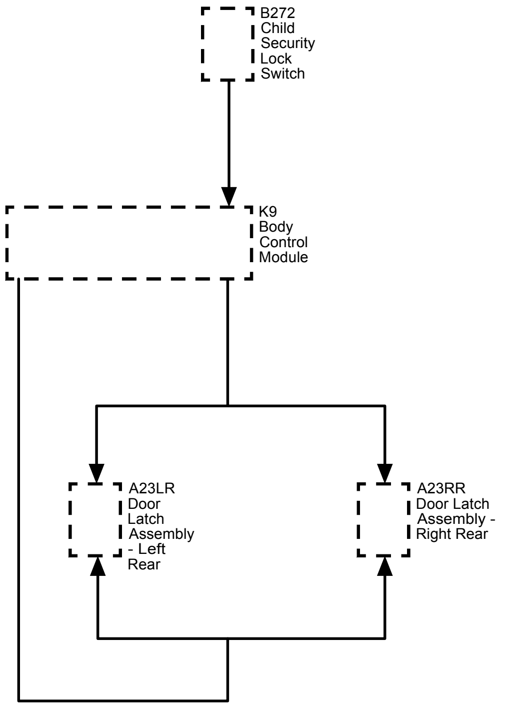
The following three circuits are used to operate the lock:

- Driver door unlock
- Passenger doors unlock
- All doors lock

Passive Door Lock/Unlock Operation

The exterior door handle switch signal circuits provide inputs to the keyless entry control module when the exterior door handle switches are activated. These inputs allow the keyless entry control module to detect a door lock or a door unlock request. The keyless entry control module provides a 12 V signal to each exterior door handle switch via the door handle switch signal circuits. When a door handle switch is pressed, the switch closes and the voltage signal within the signal circuit is pulled to ground. The keyless entry control module will detect the voltage drop and a low frequency antenna will transmit a challenge to the keyless entry transmitter. If the challenge is met, the keyless entry transmitter will respond, and the keyless entry control module will send a serial data message to the body control module to command the door(s) to be locked or unlocked

Power Door Child Lock Block Diagram



Child Security Lockout System Operation

The child door lockout switch on the driver window switch controls the child locks on the rear doors. The lockout switch is an input to the body control module and the body control module controls the door lock security relay. When the body control module receives a command from the child door lockout switch, it will apply voltage to the child security lock disable relay coil, this will energize the relay and the contact within the relay will then direct the voltage to activate the left rear and right rear child locks and then isolate them from the normal door lock system to prevent the rear doors from being opened by using the interior rear door handles. An indicator will also illuminate to alert the driver that the child lockout system has been activated. Pushing the switch again will return normal function to the rear interior door handles and the indicator will go out.

The body control module monitors the voltage level of the child security motor status signal circuit, when the child locks have been activated, the contacts of the child security motor status switch (internal to the rear door latch) will close providing a ground path for the signal circuit pulling the voltage low. It is in this manner that the body control module is able to determine if the rear door latch has been successfully been locked out.

The body control module monitors the status of the child security lockout system, when the body control module detects a fault in the system, it will command the child lockout indicator to flash ON and OFF for 30 seconds to alert the driver that the child security lockout system may not be functioning properly.

The body control module will command the child lockout indicator to flash ON and OFF for the following reasons:

- An open/high resistance in either child security motor status signal circuit
- The body control module detects that one or both rear door latches have not activated and are not locked out
- The body control module detects a short to ground or an open/high resistance in the child security lock disable relay control circuit
- A malfunctioning child security lock disable relay
- An open/high resistance in the child security lock motor control circuit

Power Door Lock Deadlock Operation

Some vehicles may be equipped with the deadlock security feature which includes an additional reversible deadlock motor contained within each door latch assembly. Each deadlock motor is wired to the BCM through 2 control circuits; the door lock deadlock control circuit and the door lock actuator unlock control circuit. To lock the door with deadlock, the door locks are activated by momentarily applying voltage to the door lock deadlock control circuits, and ground to the door lock actuator unlock control circuits. Ground to the deadlock actuators is provided through the door lock actuator unlock control circuits. Once the doors are locked with deadlock, the mechanical lock/unlock linkage within the door lock actuator is physically disconnected so that the door can not be manually unlocked and disables the functions of the interior door handles. If the content theft feature is armed at the same time, the interior door lock switches will not operate the locks.

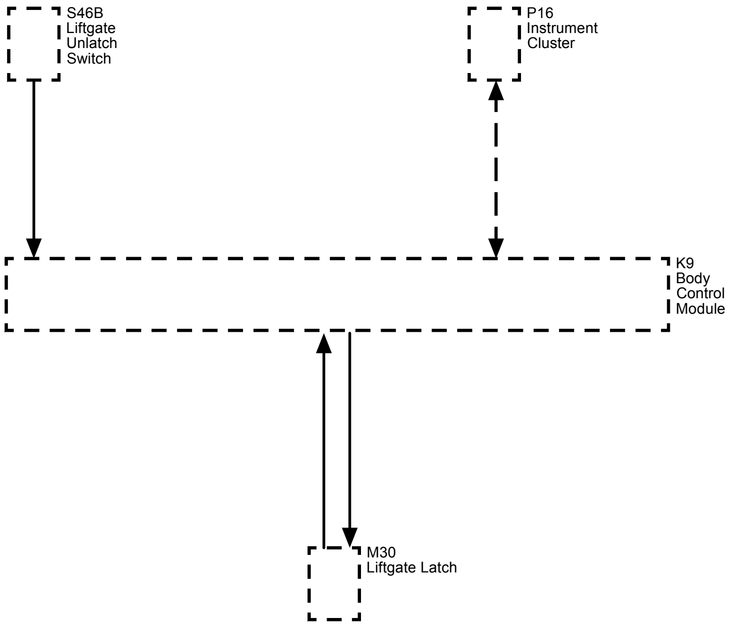
To restore the interior door handle functions, the BCM unlocks the doors by momentarily applying ground to the deadlock motor unlock control circuit. This energizes the rear door unlock relay coil causing voltage to flow through the switch contacts to the door lock and deadlock motors. Ground for both motors is supplied through the door lock motor lock circuit through the normally closed contacts of the lock relay to ground.

Rear Hatch/Gate Description and Operation

Liftgate Release System Components

- Body control module (BCM)
- Liftgate unlatch switch
- Liftgate window unlatch switch
- Liftgate latch assembly
- Liftgate window latch assembly
- Liftgate window unlatch relay
- Liftgate unlatch relay

Liftgate Release Block Diagram



Liftgate Release Operation

Liftgate Unlatch Switch

The BCM monitors supplies a 12 V signal to the liftgate unlatch switch so that when the switch is pressed, the voltage within the signal circuit is pulled low and in response, the BCM will detect the voltage drop and check the status of the door lock system. If the doors are locked, the BCM will ignore the request, if the All Doors Unlocked has been commanded, the BCM will recognize the request and command the liftgate to release.

Liftgate Latch

When BCM receives a liftgate release command from the liftgate unlatch switch, the BCM applies voltage and ground to the liftgate unlatch relay control circuit, which energizes the coil side of the relay. The switch side of the release relay then momentarily closes, supplying a brief pulse of battery positive voltage to the liftgate latch. The liftgate latch is continuously grounded and when it receives the voltage pulse, it will become energized and the latch will activate releasing the liftgate so that it may be manually raised to an open position.

Keyless Entry Transmitter

The BCM may also get a rear compartment release command from the remote keyless entry module. When the liftgate button is pressed on the keyless entry transmitter, a liftgate release request is sent to the remote keyless entry module, the remote keyless entry module will then send a serial data message to the BCM to command the release of the liftgate.

Liftgate Window

Liftgate Window Unlatch Switch

The BCM monitors supplies a 12 V signal to the liftgate window unlatch switch so that when the switch is pressed, the voltage within the signal circuit is pulled low and in response, the BCM will detect the voltage drop and check the status of the door lock system. If the doors are locked, the BCM will ignore the request, if the All Doors Unlocked has been commanded, the BCM will recognize the request and command the liftgate window to release.

Liftgate Window Latch

When BCM receives a liftgate window release command from the liftgate window unlatch switch, the BCM applies voltage to the liftgate window unlatch relay control circuit, which energizes the coil side of the relay. The switch side of the liftgate window unlatch relay then momentarily closes, supplying a brief pulse of battery positive voltage to the liftgate window latch. The liftgate window latch is continuously grounded and when it receives the voltage pulse, it will become energized and the latch will activate releasing the liftgate window so that it may be manually raised to an open position.

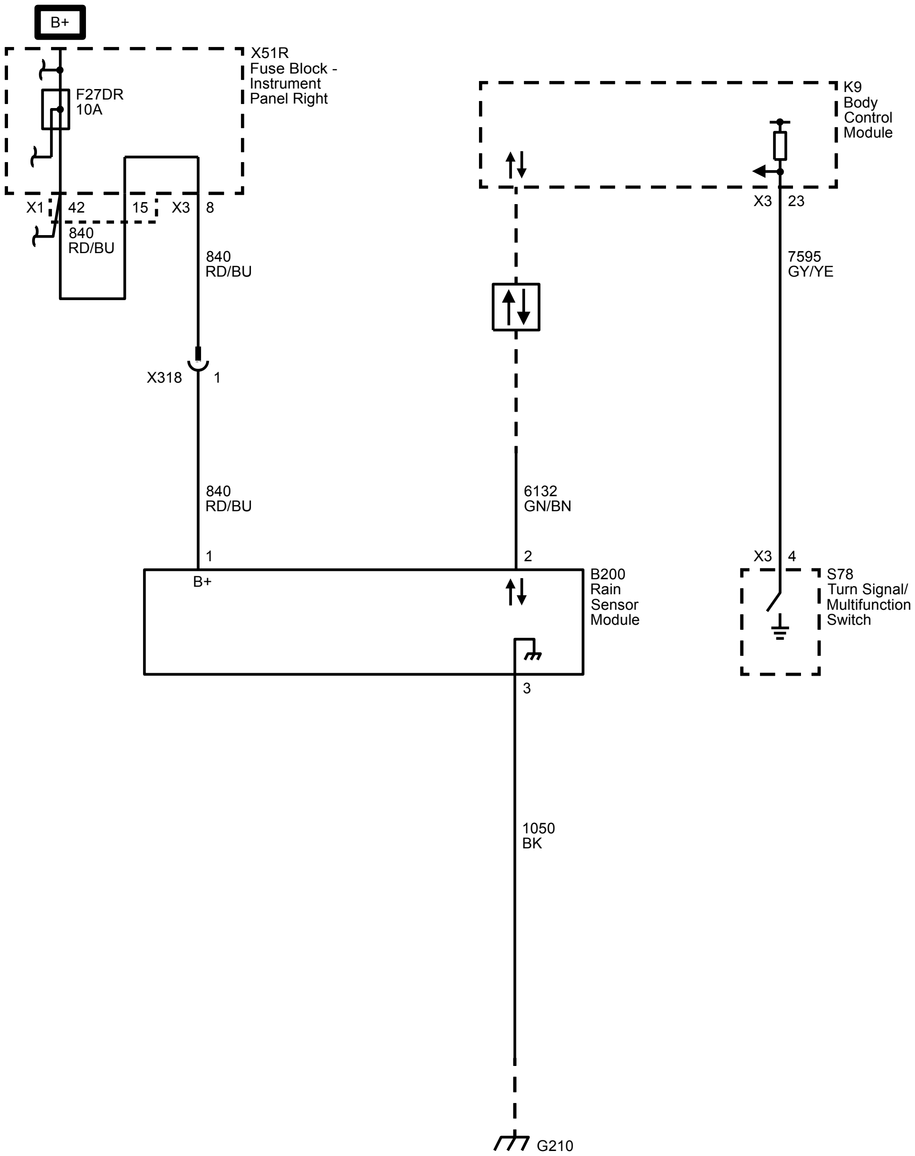
Body Systems

Wipers and Washers

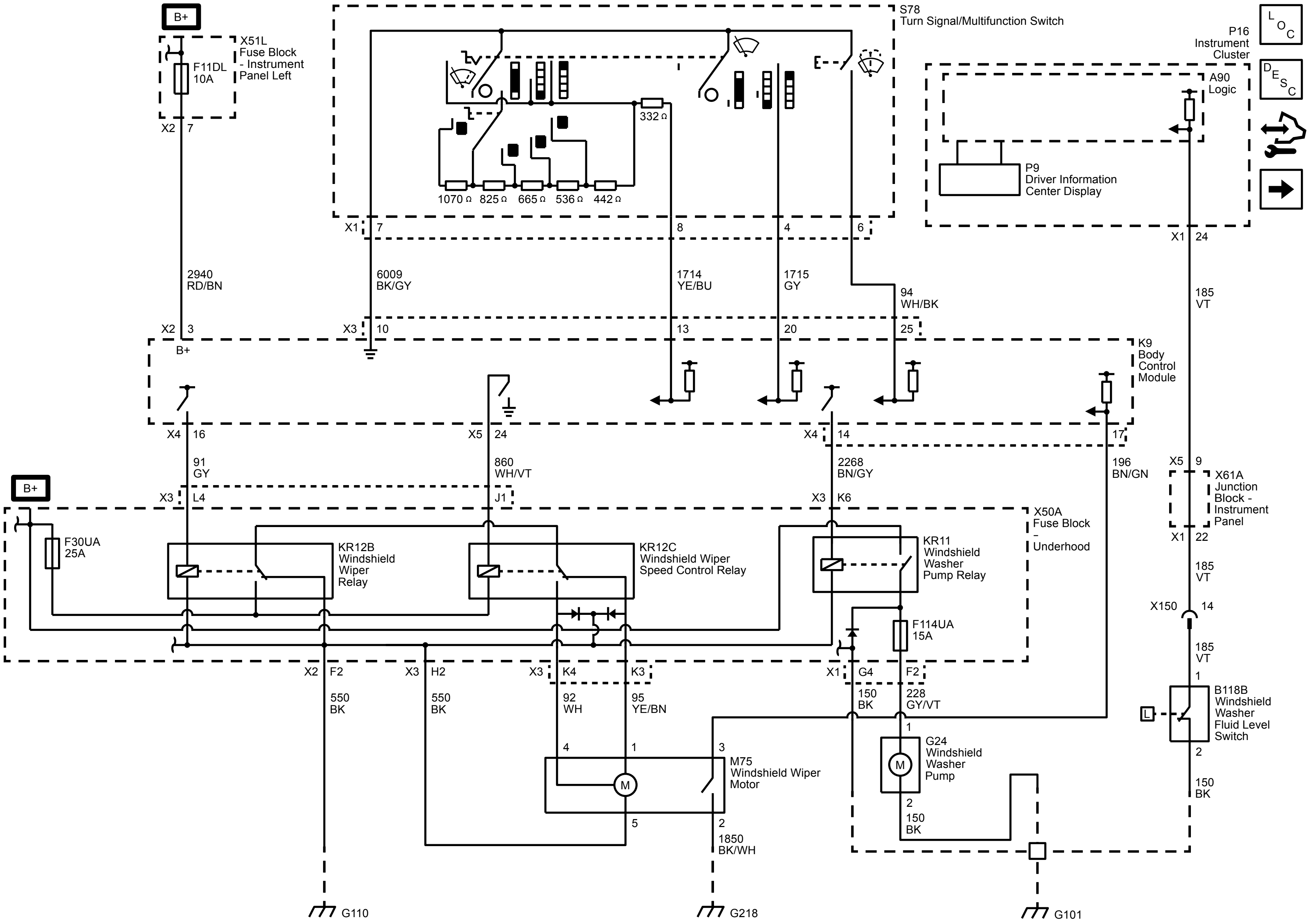
Schematic and Routing Diagrams

Wiper/Washer Schematics

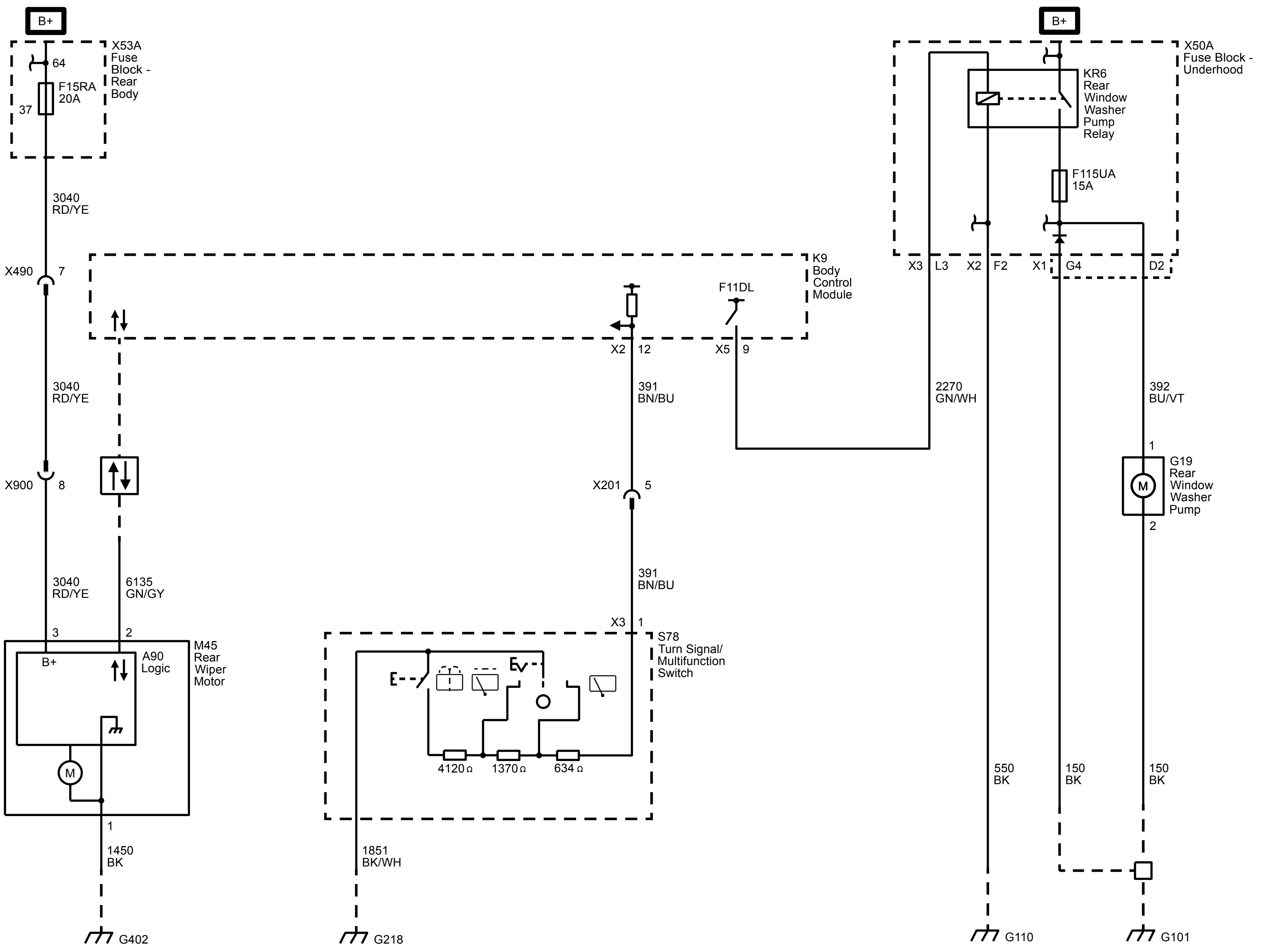
Rain Sense


B+
X51R
Fuse Block -
Instrument
Panel Right
F27DR
10A
X1
42
15
X3
8
840
RD/BU
840
RD/BU
X318
1
840
RD/BU
1
B+
2
6132
GN/BN
B200
Rain
Sensor
Module
3
1050
BK
G210
K9
Body
Control
Module
X3
23
7595
GY/YE
X3
4
S78
Turn Signal/
Multifunction
Switch

Front Wiper Motor and Washer Pump


B+
X51L
Fuse Block
- Instrument
Panel Left
F11DL
10A
X2 7
S78
Turn Signal/Multifunction Switch
332 Ω
1070 Ω
825 Ω
665 Ω
536 Ω
442 Ω
X1 7
8
4
6
P16
Instrument
Cluster
A90
Logic
P9
Driver Information
Center Display
X1 24
2940
RD/BN
6009
BK/GY
1714
YE/BU
1715
GY
94
WH/BK
185
VT
X2 3
B+
X3 10
13
20
25
K9
Body
Control
Module
X4 16
X5 24
X4 14
17
91
GY
860
WH/VT
2268
BN/GY
196
BN/GN
X5 9
X61A
Junction
Block -
Instrument
Panel
X1 22
B+
X3 L4
J1
X3 K6
X50A
Fuse Block
-
Underhood
F30UA
25A
KR12B
Windshield
Wiper
Relay
KR12C
Windshield Wiper
Speed Control Relay
KR11
Windshield
Washer
Pump Relay
F114UA
15A
185
VT
X150 14
185
VT
1
B118B
Windshield
Washer
Fluid Level
Switch
L
2
150
BK
X2 F2
X3 H2
X3 K4
K3
X1 G4
F2
550
BK
550
BK
92
WH
95
YE/BN
150
BK
228
GY/VT
4
1
3
M75
Windshield Wiper
Motor
M
5
2
1850
BK/WH
1
G24
Windshield
Washer
Pump
M
2
150
BK
G110
G218
G101

Rear Wiper Motor and Washer Pump



B+
X53A
Fuse
Block -
Rear
Body
64
F15RA
20A
37
3040
RD/YE
X490
7
K9
Body
Control
Module
F11DL
X2
12
X5
9
3040
RD/YE
391
BN/BU
2270
GN/WH
X900
8
X201
5
3040
RD/YE
6135
GN/GY
391
BN/BU
3
2
M45
Rear
Wiper
Motor
B+
A90
Logic
M
1
1450
BK
G402
X3
1
S78
Turn Signal/
Multifunction
Switch
4120 Ω
1370 Ω
634 Ω
1851
BK/WH
G218
B+
X50A
Fuse Block -
Underhood
KR6
Rear
Window
Washer
Pump
Relay
F115UA
15A
X3
L3
X2
F2
X1
G4
D2
392
BU/VT
1
G19
Rear
Window
Washer
Pump
M
2
550
BK
150
BK
150
BK
G110
G101

Description and Operation

Wiper/Washer System Description and Operation

Wiper/Washer System Components

The wiper/washer system consists of the following electrical components:

- Windshield Wiper Relay
- Windshield Wiper Speed Control Relay
- Windshield Washer Pump Relay
- Windshield Washer Fluid Pump
- Windshield Wiper Motor
- Window Wiper/Washer Switch
- Windshield Wiper Motor Fuse
- Windshield Washer Fluid Pump Fuse
- Body Control Module
- Rear Window Wiper Motor
- Rear Window Wiper Motor Fuse
- Rear Window Wiper Relay
- Rear Window Washer Pump Relay
- Windshield Washer Fluid Level Switch
- Rain Sensor

Windshield Wiper System

The body control module (BCM) determines the front wipe/wash system mode of operation by monitoring several signals from the front wipe/wash switch as indicated in the wiper switch.

The front wipe/wash switch receives a reference ground signal from the BCM. Each input of the BCM provides a switched battery pull-up for each front wiper/washer switch output signal it receives. All the BCM inputs are recognized as active when the wiper switch provides a path to the referenced ground signal. The first signal received by the BCM is the result of 6 resistors in the front wiper switch configured as a resistor ladder network. This signal is connected to a BCM analog to digital input. Depending on the function selected (High, Low, Intermittent 1 thru 5, Mist, Off), the front wiper control switch connects a different set of resistors into the circuit resulting in different voltages appearing on the BCM A/D input. By monitoring this voltage, the BCM determines how to control the wiper motor On/Off Relay. It should be noted that High, Low, and Mist all have the same value on this signal circuit. The second signal received from the front wiper switch is active only when the front wiper switch is in the high speed wiper position. When the wiper switch is not in the high speed position, the switch is open and the signal circuit is pulled to battery by the BCM. When the wiper switch is in the high speed position, the switch pulls the circuit low. The BCM determines how to control the Wiper high/low speed relay from this input. The third signal received from the front wiper switch is from the momentary windshield wash control switch. When the washer switch is not active the switch is open and the signal circuit is pulled to battery by the BCM. When the washer switch is active, the switch pulls the circuit low. The BCM controls the windshield wash and windshield wash activated wiper operation based on this input.

The BCM controls front wiper motor operation through two output signals and the monitoring of one input signal. The two outputs (one high side drive, one low side drive) are used to control two external wiper motor relays: front wiper motor on/off relay: which provides the wiper motor with battery power when it is activated by the high side drive signal (switched battery) from the BCM. When left deactivated, the normally closed contacts provide a ground to the wiper motor. Wiper high/low speed relay: when activated by a low side drive signal (ground) from the BCM, it switches the power supplied by the wiper motors on/off relay to the motors high speed input. When left deactivated, the normally closed contacts connect the power supplied by the wiper motors on/off relay to the motors low speed input. The input used by the BCM is from the park switch located in the wiper motor assembly. When the wiper blades are not in the park position, the wiper park switch is open and the circuit is pulled up to battery by the BCM. When the wiper blades are in the park position at the bottom of the glass, the wiper park switch closes to ground pulling the park signal circuit low.

To initiate low speed operation, the BCM only energizes the front wiper motor on/off relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the wiper motor on/off relay, through the normally closed contacts of the wiper high/low speed relay, to the low speed control circuit of the windshield wiper motor.

Redundant high speed switch pass through. The BCM provides redundant circuitry which places battery power on its wiper motor on/off relay output with activation of its low assertion high speed wiper switch input. The BCM shall be capable of doing this, even if the module has lost all microprocessor control. This redundant circuit shall supply power while in the RUN and CRANK power modes. however; while in the CRANK power mode, the pass through shall only be active if the BCM is NOT in a computer operating properly state.

To initiate high speed operation, the BCM energizes both the front wiper motor on/off relay and the wiper high/low speed relay . This allows battery voltage from the wiper fuse to be applied through the switched contacts of the wiper motor on/off relay, through the switched contacts of the wiper high/low speed relay, to the high speed control circuit of the windshield wiper motor.

Parking the wiper motor. In order to perform an accurate read of the park switch and to ensure the wipers will come to rest while still in the park position, parking of the wipers only occurs while in a low speed wiper mode. This requires that if the wipers are performing a high speed wiper operation at the time they are required to park, the BCM shall transition the Wipers to low speed by deactivating the wiper high/low relay before attempting to park. In order to park the wipers, the BCM monitors the park circuit until the park switch pulls the park circuit to ground. At this time, the BCM will immediately deactivate the wiper motor on/off relay. The relay contacts will switch back to their normally closed position and will apply ground to the wiper motor power inputs through the normally closed contacts of the wiper high/low relay. This deactivates and dynamically brakes the wiper motor in the park position. When the wiper switch is turned to the OFF position while the wiper motor is somewhere in mid-cycle, the BCM will continue to operate the motor until the wipers reach the park position. If the BCM is running the wiper motor and does not see a state transition of the park switch after 8 s, the wipers will stop immediately when the wiper switch is turned to OFF. If the ignition is turned OFF while the wipers are in mid-cycle, the wipers will stop immediately, regardless of position. The BCM will park the wipers next time the ignition is turned ON.

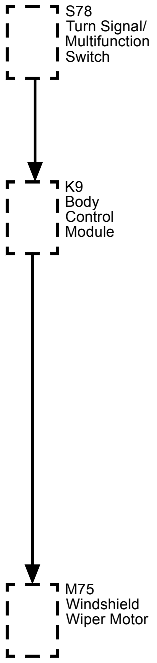
The windshield wiper system MIST operation is identical to LOW speed operation, except that the MIST switch is a press and release type switch. When the wiper switch is moved to the MIST position and released, low speed wiper motor operation is started and will continue until 1 cycle is complete. If the wiper switch is moved to the MIST position and held, the wiper motor will operate in the LOW speed mode until the switch is released.

Windshield wiper intermittent operation is a low speed wiper motor function with a variable delay interval between the wiper motor cycles. The duration of the delay is controlled by the front wiper control switches intermittent 1 thru intermittent 5 settings. The wiper operation is as follows

1. The BCM will initiate a single wipe by activating its front wiper ON/OFF relay output.

2. At the completion of a single wipe, the BCM will park the wipers as described above.
3. The BCM will then pause the wipers in their park position for the time duration associated with intermittent delay switch setting.
4. When the delay time expires repeat Steps 1 and 3 until the system is turned off or taken out of intermittent mode. If the wiper switch is moved from a longer delay interval to a shorter delay interval, the BCM will command an immediate wipe cycle and reset the delay timer to the shorter delay interval.

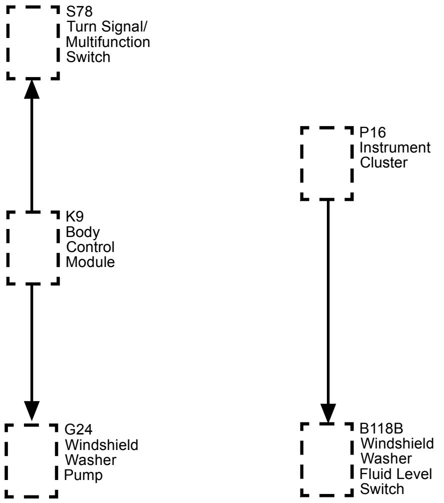
Intermittent wiper operation may be vehicle speed sensitive. When enabled, the speed compensated intermittent feature causes the intermittent wiper delay intervals to become shorter as a function of increased speed. As vehicle speed is reduced the intervals will become closer to the predetermined



Windshield Washer System

The BCM controls the windshield wash operation and windshield wash activated wiper operation. When the BCM detects the activation of the momentary windshield wash control switch, it activates its washer pump relay drive output which supplies battery power to the coil of the washer pump relay. This energizes the relay, which switches battery power to the pump motor. The BCM will also activate continuous low speed windshield wipes as described above. Upon deactivation of the windshield wash control switch, the wiper control module (BCM) shall deactivate the wash motor and will also park the wiper motor as described above unless the drip wipe feature is enabled. On some vehicles the drip wipe feature will be enabled and cause the system to provide additional wiping of the windshield after the switch has been released and fluid is no longer being applied. The front wash feature may attempt to detect a stuck switch. When enabled, activation of the wash feature shall be limited to 10 seconds.

On vehicles with the Rear Wash feature a single reversing wash motor may be utilized for both the front and rear wash operation. In this system the wash motor is operated in one direction to spray fluid on the front windshield and then operated in the reverse direction to spray fluid on the rear window. The BCM Controls the reversing wash motor through two High Side Drive outputs. One controls the Front Wiper Motor Relay and one controls the Rear Wiper Relay.



Washer Fluid Level Indicator

The check washer fluid message is controlled by the instrument panel using an input from the washer fluid level switch. The washer fluid level signal circuit is supplied ignition voltage through a resistor then monitored within the instrument cluster. The washer fluid level switch is normally open so the instrument cluster detects ignition voltage on the washer fluid level signal circuit whenever the washer fluid level is not low. When the washer fluid reaches the point where the driver should be informed that the washer fluid is low, the washer fluid level switch closes. When the washer fluid level switch is closed the washer fluid level signal circuit voltage is pulled low, and the instrument panel displays the Check Washer Fluid message on the driver information center. In order to prevent the Check Washer Fluid message from being displayed while sloshing is occurring in the washer fluid container, the instrument cluster is programed with a 1 min delay before changing states of the Check Washer Fluid message during an ignition cycle.

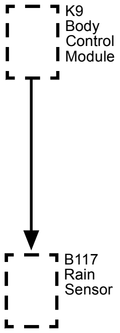
Rain Sensor Indicator

B+ voltage is supplied to the Rain Sensor. Whenever the ignition is ON, or accessory positions, the body control module (BCM), sends the turn signal/multifunction switch status by using data communication. When a wipe cycle is needed, the Rain Sensor sends a data communication message to the BCM, requesting the wiper operation. The BCM commands the Windshield Wiper Motor wipe cycles. If at anytime a fault occurs between the Rain Sensor and BCM, the BCM will use the inputs from the turn signal/multifunction switch in the delay positions to operate the Windshield Wiper Motor at continuous variable delay intervals.

The system supports the Rainsense On/Off button. Press to turn the Rainsense On/Off. When turned on and the front is in one of the Rain sensor wipe sensitivity positions, the wipers can be adjusted for more or less sensitivity to moisture. When turned off, the wipers operate as timed intermittent wipers and can be adjusted for more or less frequent wipes.

If the ignition is in ON/RUN and the front band is in one of the sensitivity settings when auto is turned on or off, a message may display indicating if Rain sensor was turned on or off.

If the ignition is in ON/RUN and the front is not in one of the sensitivity settings when auto is turned on, a message may display indicating that the wiper band must be in one of the sensitivity settings for Rain sensor to operate.

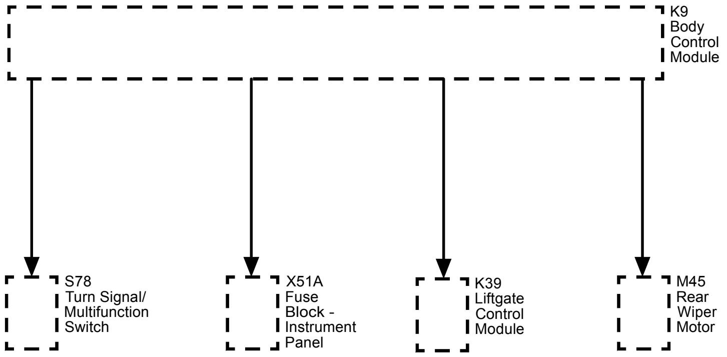


Rear Wiper System

On vehicles equipped with a Rear Wiper, the BCM determines of the Rear Wipe/Wash System Mode of Operation by monitoring the multiplexed output of the Rear Wipe/Wash Switch. The Rear Wipe Wash Switch uses a reference ground signal from the BCM. The BCM provides a switched Battery pull-up for the Rear Wiper/Washer Switch output signal it receives. All the BCM inputs are recognized as active when the Rear Wiper Switch provides a path to the referenced ground signal. The Rear Wiper/Washer signal received by the BCM is the result of 3 resistors in the Rear Wiper Switch configured as a resistor ladder network. This signal is connected to a BCM Analog to Digital Input which also provides a switched Battery pull-up for the circuit. Depending on the function selected (Low, Intermittent, Off, Wash), the Rear Wiper Control Switch connects a different set of resistors into the circuit resulting in different voltages appearing on the BCM A/D input. By monitoring this voltage, the BCM determines how to control the Rear Wiper Motor Relay and the Rear Washer Relay.

The BCM Controls the single speed Rear Wiper Motor by its Active High output to the external Rear Wiper Motor Relay. When the BCM activates its output and applies Battery to the coil of the relay, the relay energizes, allowing Battery voltage from the fuse to be applied through the switched contacts of the Rear Wiper Motor Relay to the Rear Wiper Motor's control input. The motor then operates continuously at low speed. The BCM does not control the parking of the Rear Wiper Motor, it is self parking. When the BCM deactivates its output, the contacts of the Rear Wiper Motor Relay switch back to ground which will be used by the wiper for Dynamic Braking. The Rear Wiper's internal park switch and circuitry will sustain motor operation until the wiper arm has returned to its Park position.

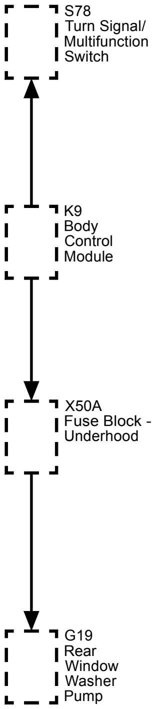
Rear Wiper Block Diagram


K9
Body
Control
Module
S78
Turn Signal/
Multifunction
Switch
X51A
Fuse
Block -
Instrument
Panel
K39
Liftgate
Control
Module
M45
Rear
Wiper
Motor

Rear Wash

When the Body Control Module detects that the Rear wiper/wash switch has activated the momentary Wash switch, it activates a High Side Drive output which supplies Battery to the coil of the Rear Washer Pump Relay. This energizes the Relay, which switches Battery Power to the Washer Pump Motor. The BCM will also activate continuous Low Speed Windshield Wipers as described above. The BCM software will attempt to detect a stuck Rear Wash Switch. A stuck Rear Wash Switch condition is detected if the Rear Wash Motor Relay Output has been continuously active for 10 seconds or more. Upon detecting this the BCM will fail soft the state of the Rear Wash Control to Inactive. This shall cause the System to perform as if the momentary Wash control had been released.

Rear Washer Block Diagram


S78
Turn Signal/
Multifunction
Switch
K9
Body
Control
Module
X50A
Fuse Block -
Underhood
G19
Rear
Window
Washer
Pump

Brakes

Trailer Brake Controls

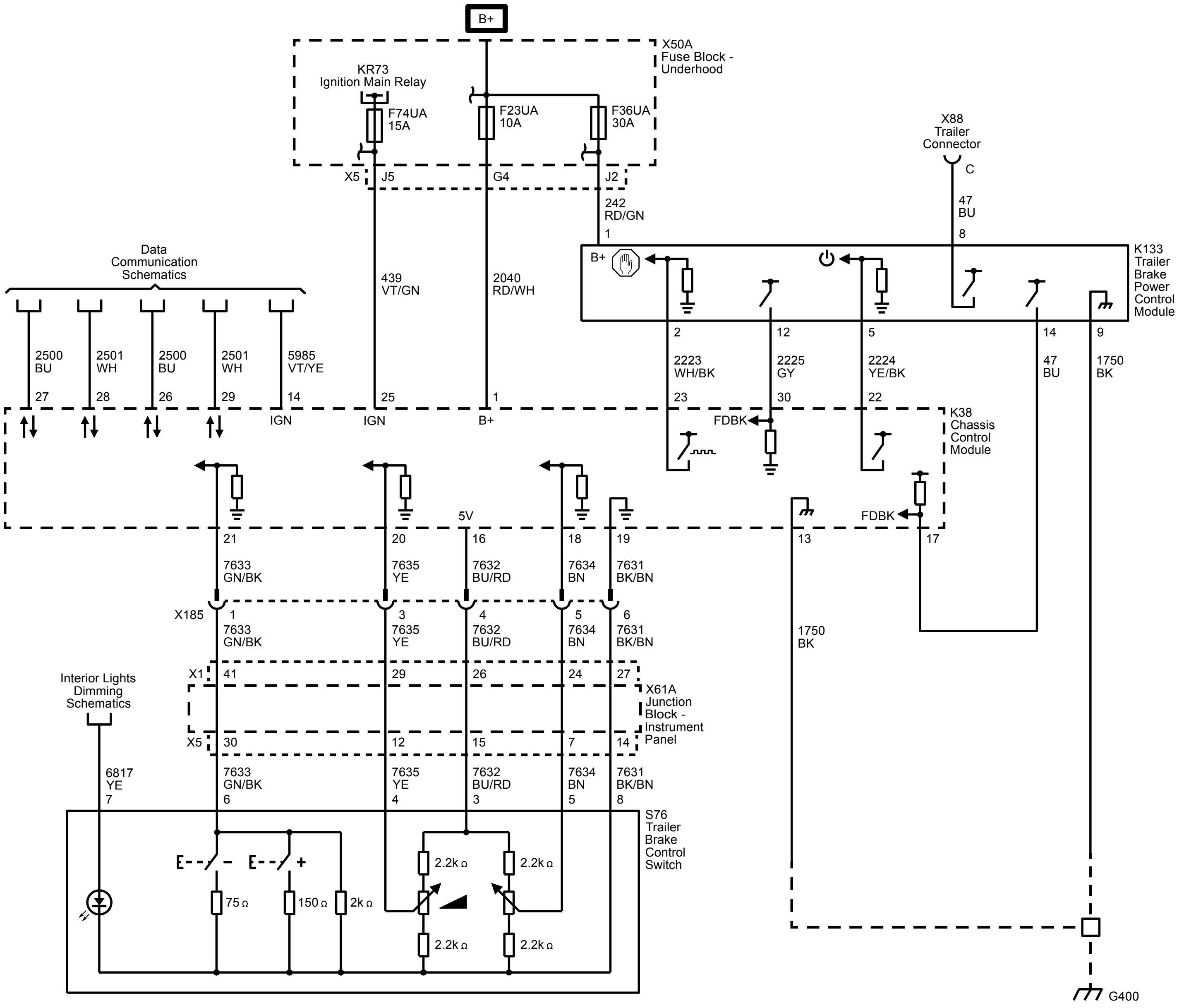
Schematic and Routing Diagrams

Trailer Brake Control Schematics

Trailer Brake

LOC

DESC


B+
X50A
Fuse Block - Underhood
KR73
Ignition Main Relay
F74UA
15A
F23UA
10A
F36UA
30A
X5
J5
G4
J2
242
RD/GN
1
X88
Trailer Connector
C
47
BU
8
K133
Trailer Brake Power Control Module
B+
Data Communication Schematics
2500
BU
2501
WH
2500
BU
2501
WH
5985
VT/YE
27
28
26
29
14
439
VT/GN
25
2040
RD/WH
1
IGN
IGN
B+
2
2223
WH/BK
23
12
2225
GY
30
5
2224
YE/BK
22
14
47
BU
9
1750
BK
FDBK
K38
Chassis Control Module
5V
21
20
16
18
19
13
FDBK
17
7633
GN/BK
7635
YE
7632
BU/RD
7634
BN
7631
BK/BN
X185
1
3
4
5
6
1750
BK
X1
41
29
26
24
27
X61A
Junction Block - Instrument Panel
X5
30
12
15
7
14
Interior Lights Dimming Schematics
6817
YE
7
6
4
3
5
8
S76
Trailer Brake Control Switch
-
+
75 Ω
150 Ω
2k Ω
2.2k Ω
2.2k Ω
2.2k Ω
2.2k Ω
G400

Description and Operation

Trailer Brake Controls Description and Operation

A trailer brake control system is used to control the amount of trailer braking power that is made available to trailers with brakes that require a controlled electrical output signal for actuation.

The power output to the trailer brakes is based on both the amount of braking being applied by the vehicle's brake system and on the type of trailer brakes detected.

The Trailer Brake Control System is compatible with two types of Trailer Brake Systems as listed below:

1. **Electric Brakes** A controlled electrical output signal energizes an electric-magnet/lever arm assembly that directly actuates the brake mechanism. The GDS name for this system is "Electromagnetic Brakes".
2. **Electric Over Hydraulic Brakes** A controlled electrical output signal energizes a remote, trailer mounted hydraulic pump to build brake pressure in a closed hydraulic system on the trailer. The hydraulic fluid pressure actuates the brake mechanism. The GDS name for this system is "Electrohydraulic Brakes".

Trailer Brake Output Versus Trailer Brake Type

- The trailer brake system characterizes the trailer brakes as either Electric Brake or Electric Over Hydraulic Brake automatically. This characterization may be affected by the number, type, and age of the trailer brake magnets, as well as any other devices installed on the trailer brakes (i.e. adapters for Electric Over Hydraulic brake functionality).
- The trailer brake system is fully operational with either characterization.
- Some features of the trailer brake system may be different based on the trailer brake type characterization. An example of this is at zero speed, where pressing the service brake pedal will produce output when the trailer brakes are characterized as Electric Brakes, but not when characterized as Electric Over Hydraulic Brakes.
- Sliding the manual trailer brake apply lever will produce output at zero speed for either characterization.

The user gain allows the driver to adjust the amount of trailer brake output to match the trailer load and road surface. The controller determines the desired trailer brake output and provides a control signal to the K133 Trailer Brake Power Control Module. The K133 Trailer Brake Power Control Module amplifies the signal and provides the output required to activate the Electric or Electric Over Hydraulic trailer brakes.

The trailer brake control can support up to a maximum of four axles with electric trailer brakes (8 brake magnets).

Connecting a trailer that is not compatible with the trailer brake system may result in reduced or complete loss of trailer braking. There may be an increase in stopping distance or trailer instability which could result in personal injury or damage to the vehicle, trailer or other property. An aftermarket controller may be available for use with trailers with surge or air trailer brake systems.

To determine the type of brakes on your trailer and the availability of controllers, check with your trailer manufacturer or dealer. Do not power up an aftermarket controller with the factory brake controller at the same time.

The vehicle is equipped with the following trailer braking components:

- K38 Chassis Control Module
- K133 Trailer Brake Power Control Module
- S76 Trailer Brake Control Panel
- Manual Trailer Brake Apply
- Trailer Gain Adjustment
- Trailer Brake Driver Information Center Display

Chassis Control Module

The K38 Chassis Control Module (CCM) is a serviceable GMLAN module. The chassis control module sends the low power commanded duty cycle signal to the trailer brake power control module. The trailer brake power control module amplifies the signal and provides an output that is required to drive the trailer brakes.

Trailer Brake Power Control Module

The K133 Trailer Brake Power Control Module (TBPM) is a solid state power switching module that supplies power to the trailer brakes at the input command duty cycle. Diagnostic messages are sent from the TBPM to the CCM on a dedicated LIN bus.

Trailer Brake Control Panel

The S76 Trailer Brake Control Panel contains the trailer gain and manual apply switches. It is located on the instrument panel to the left of the steering column. Refer to the instrument panel overview for more information on the location. The control panel and switches allows you to adjust the amount of output, referred to as trailer gain, available to the Electric or Electric Over Hydraulic brakes. It also allows you to manually apply the trailer brakes. The trailer brake control panel and switches are used along with the trailer brake display page on the driver information center to adjust and display power output to the trailer brakes.

Manual Trailer Brake Apply

The manual trailer brake apply lever is located on the S76 Trailer Brake Control Panel and is used to apply the trailer's Electric or Electric Over Hydraulic brakes independent of the vehicle's brakes. This lever is used in the trailer gain adjustment procedure to properly adjust the power output to the trailer brakes.

Sliding the lever to the left will apply only the trailer brakes. The power output to the trailer is indicated in the trailer brake display page in the Driver Information Center (DIC). If the vehicle's service brakes are applied while using the manual trailer brake apply lever, the trailer output power will be the greater of the two.

The trailer and the vehicle's brake lamps will come on when either the vehicle's braking or manual trailer brakes are applied.

Trailer Gain Adjustment

Trailer gain should be set for a specific trailering condition and must be adjusted any time vehicle loading, trailer loading or road surface conditions change. It is important to re-adjust trailer gain any time the tow vehicle, trailer loading or road surface conditions change or it you notice trailer wheel lock-up at any time while you are towing.

Setting the trailer gain properly is needed for the best trailer stopping performance. A trailer that is over-gained may result in locked trailer brakes. A trailer that is under-gained may result in not enough trailer braking. Both of these conditions may result in poor stopping and stability of the vehicle and trailer.

Trailer Gain Adjustment Procedure

- Adjust trailer gain in 0.5 step increments up to 10 gain setting by using the gain adjustment +/− buttons on the trailer brake control panel switch. Pressing and holding a gain button will cause the trailer gain to continuously increment or decrement. To turn the output to the trailer off, set the gain to zero.
- Drive the tow vehicle and trailer combination on a level surface representative of the towing condition and free of traffic at approximately 32–40 km/h (20–25 mph) and fully apply the manual trailer brake apply lever mechanism located on the trailer brake control panel switch. Adjusting the trailer gain at slower speeds may result in an incorrect gain setting.
- Adjust the trailer gain to just below the threshold of trailer wheel lock-up . Trailer wheel lock-up may not occur if towing a heavily loaded trailer. In this case, adjust the trailer gain to the highest allowable setting for the towing condition.

Hill Start Assist

The hill start assist allows the driver to launch the vehicle without a roll back when the driver is moving their foot from the brake pedal to the accelerator pedal. Refer to the hill start assist system in the anti-lock brake system description and operation document for more information.

Trailer Sway Control

The trailer sway control can detect the vehicle yaw instability, caused by an attached trailer. Refer to the trailer sway control system in the anti-lock brake system description and operation document for more information.

Driver Information Center Indicators and Messages

The following indicators are used to inform the driver of several different conditions:

Trailer Connected

This message will be briefly displayed when a trailer with Electric or Electric Over Hydraulic brakes is first connected to the vehicle. This message will automatically turn off in about ten seconds. The driver can also acknowledge this message before it automatically turns off.

Check Trailer Wiring

This message will be displayed if:

- The system detects that a trailer with Electric or Electric Over Hydraulic brakes is connected to the vehicle and then the trailer harness becomes disconnected from the vehicle.
- The trailer connection is recognized initially and then a disconnect occurs while the vehicle is stationary. This message will automatically turn off in about thirty seconds. This message will also turn off if the driver acknowledges this message off or if the trailer harness is reconnected.
- A disconnect of the trailer wiring harness occurs while the vehicle is moving. The Check Trailer Wiring message will continue until the ignition is turned off. The message will also turn off if the driver acknowledges this message off or it the trailer harness is re-connected or repairs are completed.
- There is an electrical fault in the wiring to the electric trailer brakes. The Check Trailer Wiring message will continue as long as there is an electrical fault in the trailer wiring. This message will also turn off if the driver acknowledges this message off.
- A poor connection at the 7–way connector may cause the Check Trailer Wiring message. Some aftermarket 7–way trailer side connector adapters or plugs may cause deformation or excessive wear to the vehicle’s trailer terminals. It is recommended that you use an OEM or Pollak heavy duty 7–way trailer side connector adapter.

Service Trailer Brake System

This message will be displayed when there is a problem with the trailer brake control system. The trailer brake system may not be fully functional, or may not be functioning at all. The trailer brake system is designed to provide trailer braking, if possible, even when faults prevent it from being fully functional. This reduced functionality includes:

1. Providing trailer braking when the master cylinder pressure or brake pedal switch are faulted.
2. Providing trailer braking when hill start assist and trailer sway control communication is faulted.
3. Providing trailer braking when certain manual trailer brake apply lever faults are present.

These conditions should be repaired to allow the trailer brake system to be fully functional.

Trailer Gain and Output Display

This display menu can be accessed by scrolling through the DIC menu, or any time the trailer gain +/− button is depressed, or the manual trailer brake apply lever is actuated. The trailer output is displayed from 0 to full output and indicates the output power provided to the trailer brakes, relative to the gain setting.

After the electrical connection is made to a trailer equipped with electric brakes or electric over hydraulic brakes, the TRAILER CONNECTED message will be displayed momentarily on the DIC. The Trailer Brake Display Page can be selected on the DIC showing TRAILER GAIN and OUTPUT, after all vehicle related service messages are acknowledged by the driver. Depending on which instrument panel cluster is in the vehicle, the DIC may display dashed lines, a greyed out display, or it may be blank signifying a disconnected trailer or a trailer brake fault condition.

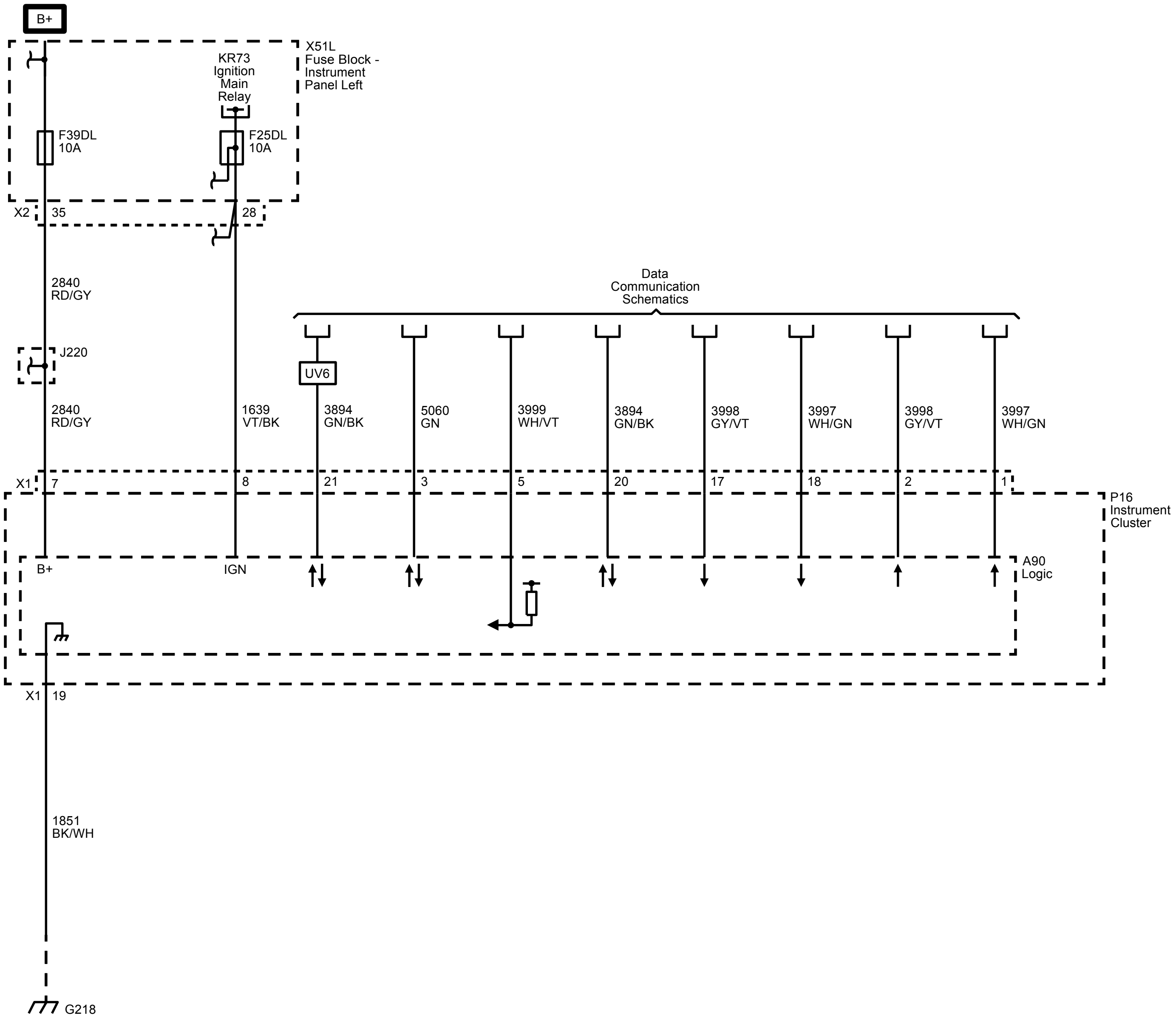
Driver Information and Entertainment

Displays and Gauges

Schematic and Routing Diagrams

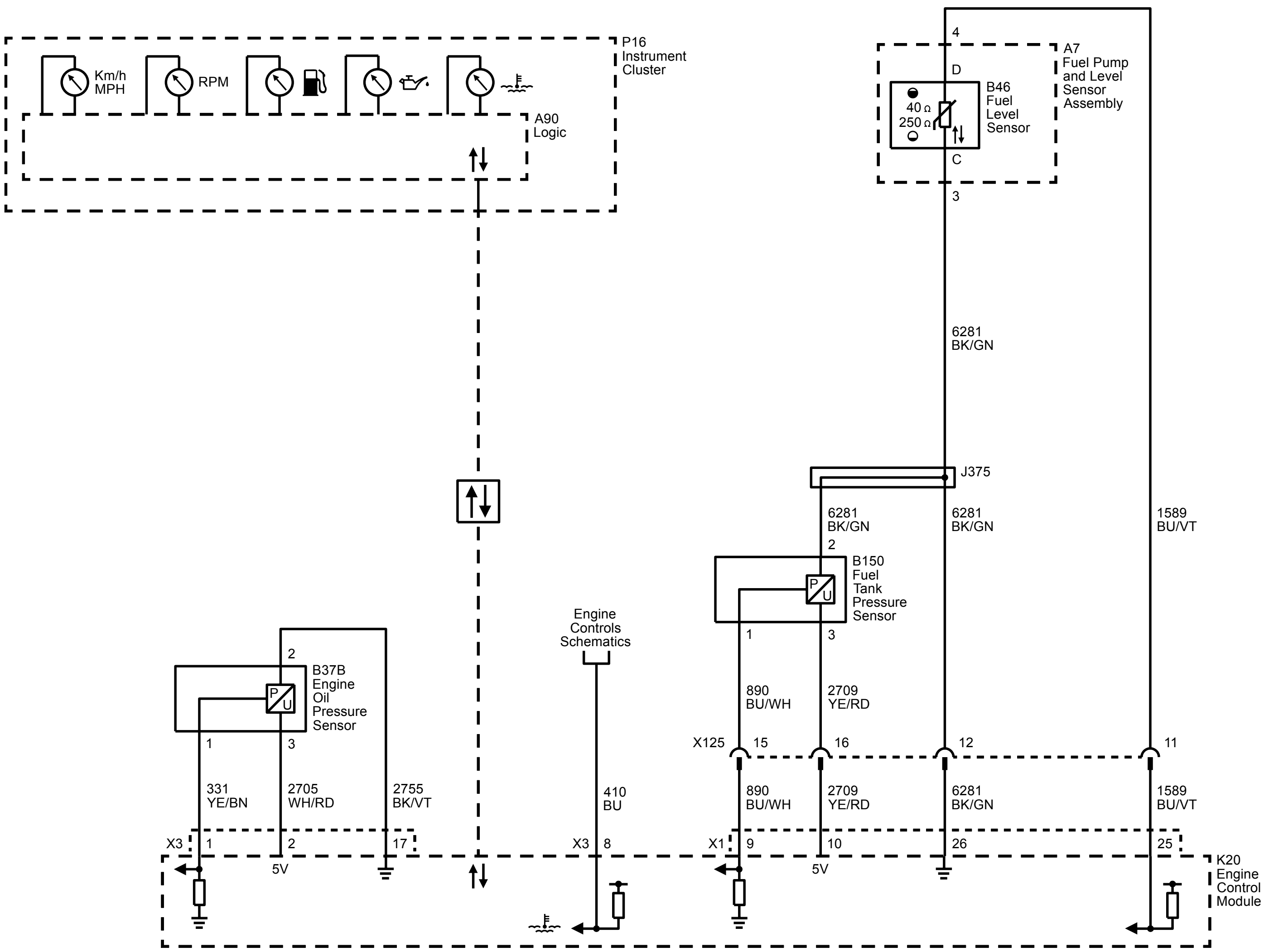
Instrument Cluster Schematics

Power, Ground and Serial Data



B+
X51L
Fuse Block - Instrument Panel Left
KR73
Ignition Main Relay
F39DL
10A
F25DL
10A
X2
35
28
2840
RD/GY
J220
2840
RD/GY
1639
VT/BK
Data Communication Schematics
UV6
3894
GN/BK
5060
GN
3999
WH/VT
3894
GN/BK
3998
GY/VT
3997
WH/GN
3998
GY/VT
3997
WH/GN
X1
7
8
21
3
5
20
17
18
2
1
P16
Instrument Cluster
B+
IGN
A90
Logic
X1
19
1851
BK/WH
G218

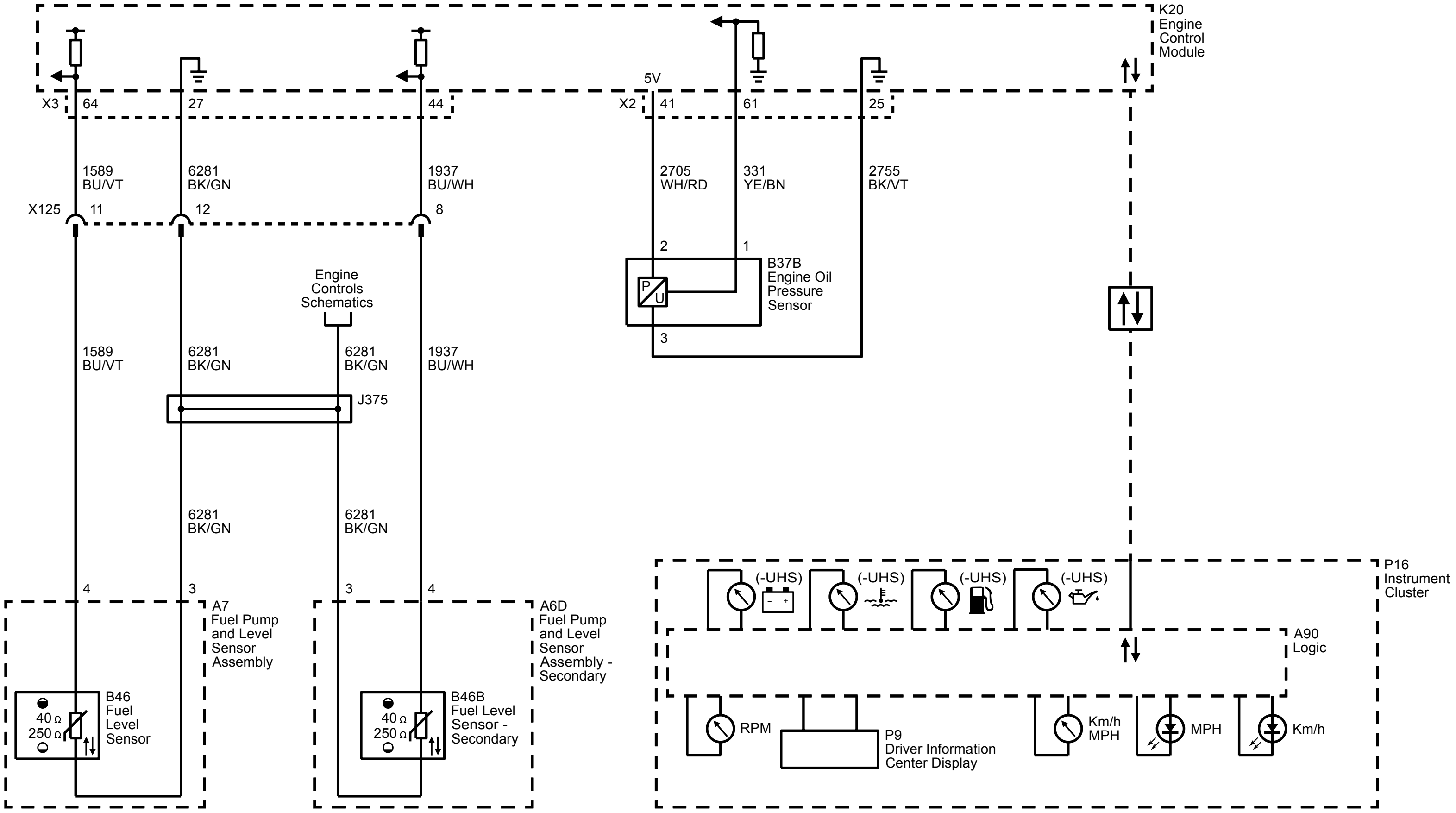
Gages (L83 or L86)



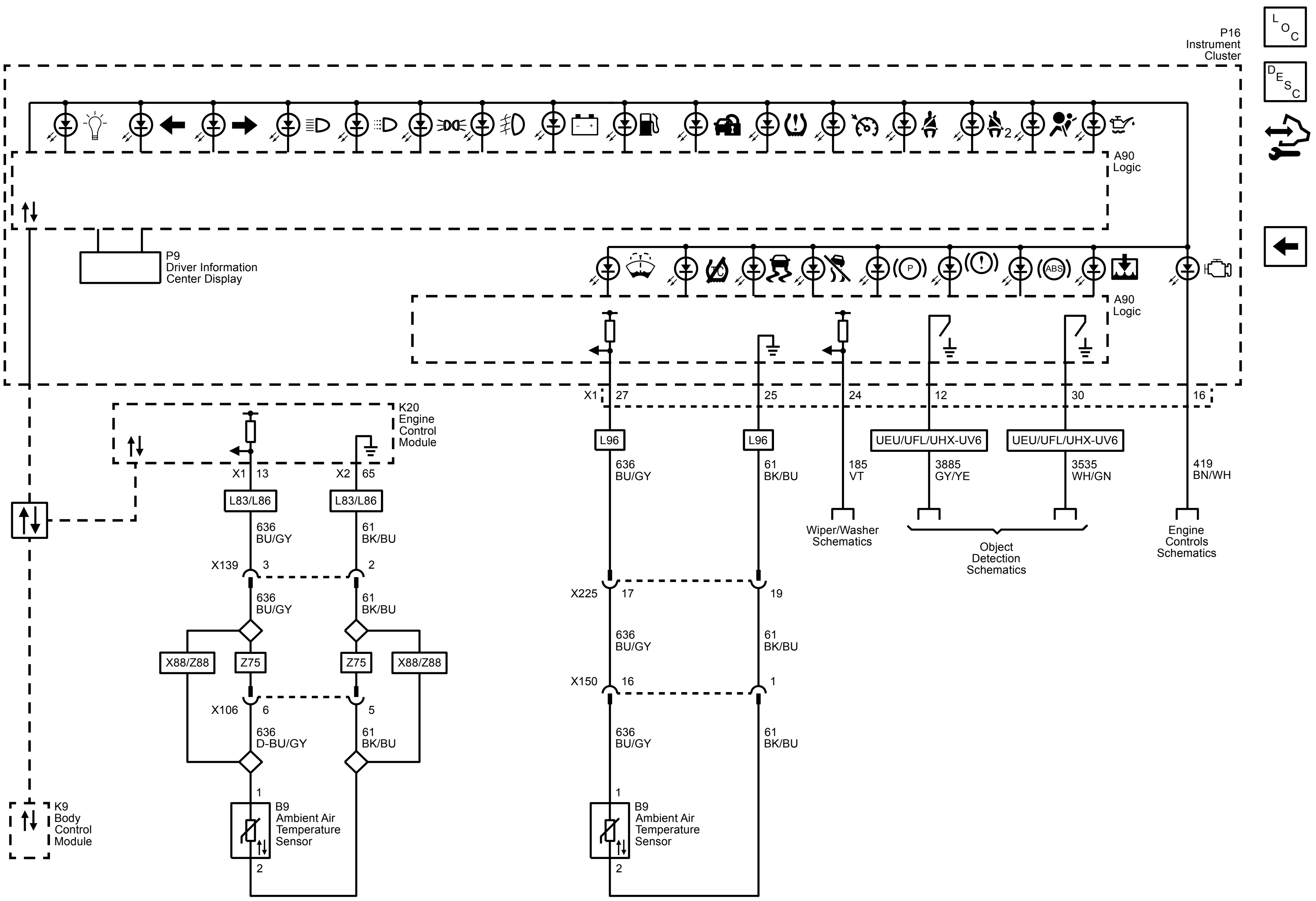
Km/h
MPH
RPM
P16
Instrument
Cluster
A90
Logic
4
D
A7
Fuel Pump
and Level
Sensor
Assembly
40 Ω
250 Ω
B46
Fuel
Level
Sensor
C
3
6281
BK/GN
J375
6281
BK/GN
6281
BK/GN
1589
BU/VT
2
B150
Fuel
Tank
Pressure
Sensor
P
U
1
3
Engine
Controls
Schematics
2
B37B
Engine
Oil
Pressure
Sensor
P
U
1
3
890
BU/WH
2709
YE/RD
X125
15
16
12
11
331
YE/BN
2705
WH/RD
2755
BK/VT
410
BU
890
BU/WH
2709
YE/RD
6281
BK/GN
1589
BU/VT
X3
1
2
17
X3
8
X1
9
10
26
25
5V
5V
K20
Engine
Control
Module

Gages (L96)

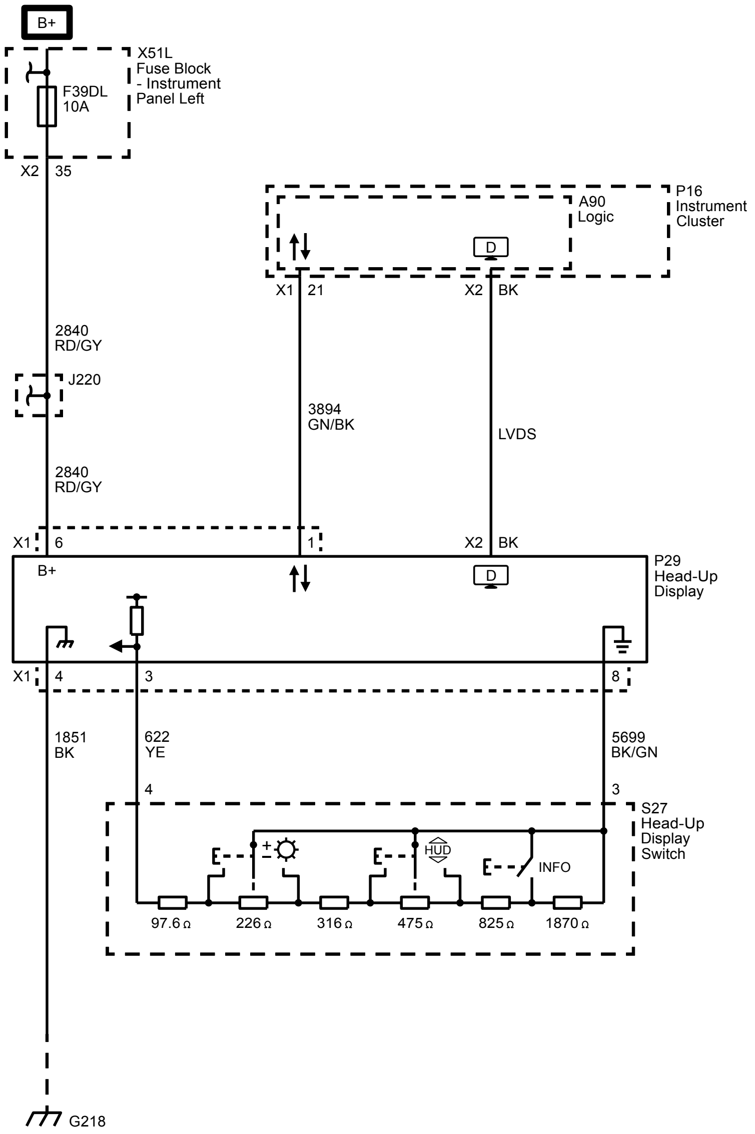
LOC
DESC


K20
Engine
Control
Module
X3
64
27
44
X2
5V
41
61
25
1589
BU/VT
6281
BK/GN
1937
BU/WH
2705
WH/RD
331
YE/BN
2755
BK/VT
X125
11
12
8
2
1
B37B
Engine Oil
Pressure
Sensor
P
U
3
Engine
Controls
Schematics
1589
BU/VT
6281
BK/GN
6281
BK/GN
1937
BU/WH
J375
6281
BK/GN
6281
BK/GN
4
3
A7
Fuel Pump
and Level
Sensor
Assembly
3
4
A6D
Fuel Pump
and Level
Sensor
Assembly -
Secondary
B46
Fuel
Level
Sensor
40 Ω
250 Ω
B46B
Fuel Level
Sensor -
Secondary
40 Ω
250 Ω
(-UHS)
(-UHS)
(-UHS)
(-UHS)
P16
Instrument
Cluster
A90
Logic
RPM
P9
Driver Information
Center Display
Km/h
MPH
MPH
Km/h

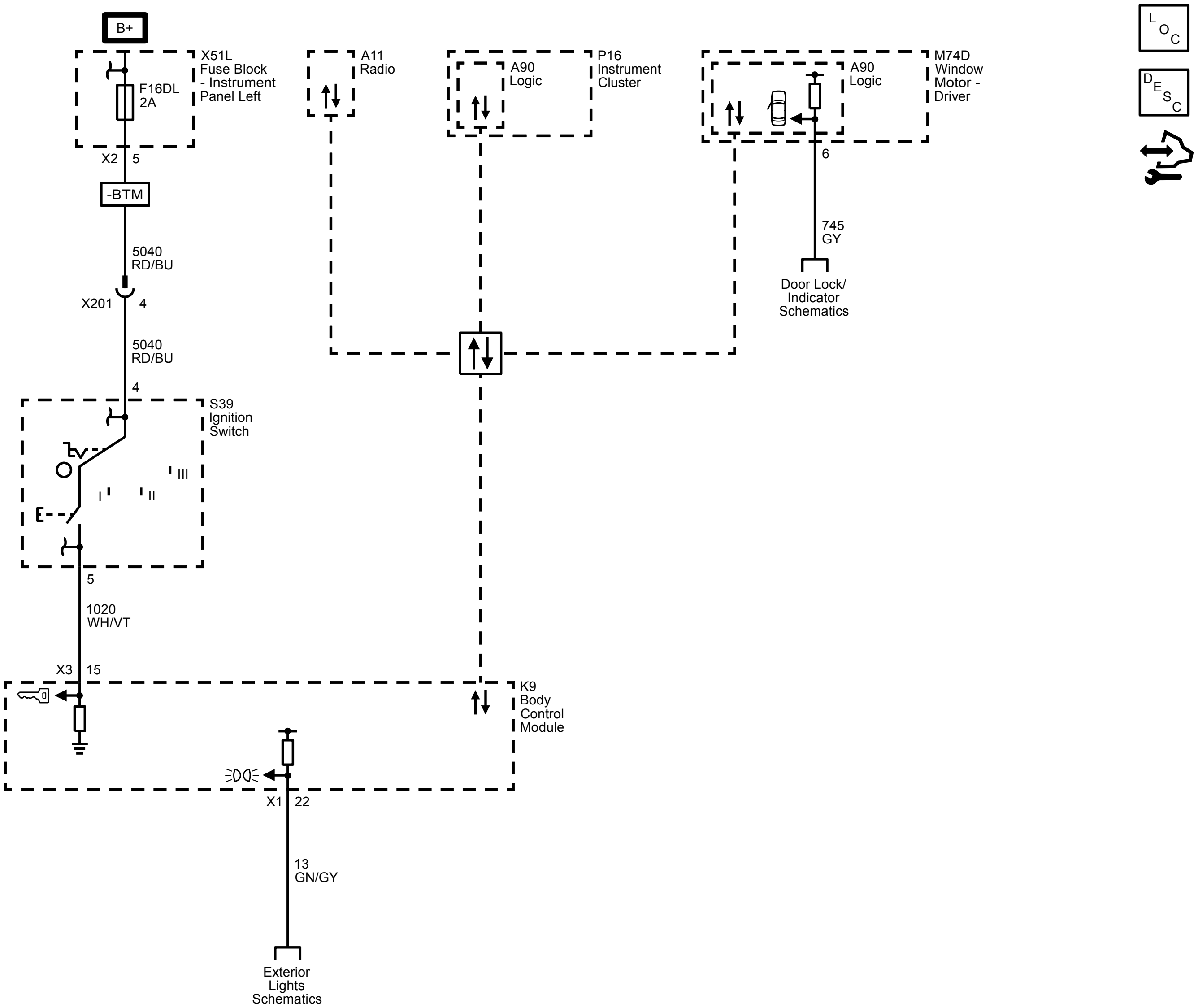
Indicators


L O C
D E S C
P16
Instrument
Cluster
A90
Logic
P9
Driver Information
Center Display
A90
Logic
X1
27
25
24
12
30
16
K20
Engine
Control
Module
X1
13
X2
65
L83/L86
L83/L86
636
BU/GY
61
BK/BU
X139
3
2
636
BU/GY
61
BK/BU
X88/Z88
Z75
Z75
X88/Z88
X106
6
5
636
D-BU/GY
61
BK/BU
1
B9
Ambient Air
Temperature
Sensor
2
K9
Body
Control
Module
L96
L96
UEU/UFL/UHX-UV6
UEU/UFL/UHX-UV6
636
BU/GY
61
BK/BU
185
VT
3885
GY/YE
3535
WH/GN
419
BN/WH
Wiper/Washer
Schematics
Object
Detection
Schematics
Engine
Controls
Schematics
X225
17
19
636
BU/GY
61
BK/BU
X150
16
1
636
BU/GY
61
BK/BU
1
B9
Ambient Air
Temperature
Sensor
2
2
ABS
P

Head-Up Display Schematics


B+
X51L
Fuse Block
- Instrument
Panel Left
F39DL
10A
X2
35
P16
Instrument
Cluster
A90
Logic
D
X1
21
X2
BK
2840
RD/GY
J220
3894
GN/BK
LVDS
2840
RD/GY
X1
6
1
X2
BK
P29
Head-Up
Display
B+
D
X1
4
3
8
1851
BK
622
YE
5699
BK/GN
4
3
S27
Head-Up
Display
Switch
HUD
INFO
97.6 Ω
226 Ω
316 Ω
475 Ω
825 Ω
1870 Ω
G218

Audible Warnings


B+
X51L
Fuse Block
- Instrument
Panel Left
F16DL
2A
X2 5
-BTM
5040
RD/BU
X201 4
5040
RD/BU
4
S39
Ignition
Switch
I
II
III
5
1020
WH/VT
X3 15
A11
Radio
A90
Logic
P16
Instrument
Cluster
A90
Logic
M74D
Window
Motor -
Driver
6
745
GY
Door Lock/
Indicator
Schematics
K9
Body
Control
Module
X1 22
13
GN/GY
Exterior
Lights
Schematics
LOC
DESC

Description and Operation

Audible Warnings Description and Operation

The audible warnings alert the driver of a system concern or a critical vehicle condition. If equipped with an serial data communicating audio amplifier, the audio amplifier generates the audible warnings through the speakers. If not equipped with an audio amplifier, the radio generates the audible warnings through the speakers. The radio or audio amplifier receives audible warning requests via serial data. If the radio or audio amplifier receives multiple audible warning requests, the warning with the highest priority sounds first. Different audible warnings may sound with a different frequency or a different chime pattern, depending on the system or module making the request. The chime volume may be selectable through vehicle personalization.

Audible Warnings or Chimes

The following is a list of common audible warnings or chimes. For additional chimes or complete system description, refer to the appropriate system's Description and Operation or the vehicle owner's manual.

- Driver Seat Belt Reminder – If the vehicle is started and the seat belt is unbuckled, the BCM requests the radio or audio amplifier sound a chime to indicated that the belt is unbuckled. This is accompanied by a flashing driver seat belt indicator on the instrument cluster. If the belt remains unbuckled, the chime cycle may continue multiple times if the vehicle is driven and the indicator will remain on solid.
- Passenger Seat Belt Reminder – If the passenger presence system determines that their is an occupant in the passenger seat and the vehicle is started with the passenger seat belt unbuckled, the BCM requests the radio or audio amplifier sound a chime to indicated that the belt is unbuckled. This is accompanied by a flashing passenger seat belt indicator. If the belt remains unbuckled, the chime cycle may continue multiple times if the vehicle is driven and the indicator will remain on solid. If an object is placed on the passenger seat, the passenger presence system may interpret this as a passenger occupying the seat. Because the passenger seat belt is unbuckled, the passenger seat belt reminder chime will sound. To correct this, remove the object from the passenger seat.
- Exterior Lamps On Warning – If the exterior lamps are left on after the ignition is turned off and the driver door is opened, the BCM will request the radio or audio amplifier sound a chime as an indicator that the exterior lamps are on.
- Electric Parking Brake (if equipped) – If the electric parking brake switch is pressed while the vehicle is in motion, the parking brake control module will request the radio or audio amplifier sound a chime. To release the parking brake, the brake pedal must be pressed when the electric parking brake switch is pressed. If the brake pedal is not pressed, the parking brake control module will request the radio or audio amplifier sound a chime. A message will also appear on the driver information center.
- Delayed Locking – If the keyless entry transmitter is not in the vehicle and the door lock switch is pressed with the driver door open, the BCM will request the radio or audio amplifier sound a chime three times to indicate that the vehicle has entered a delayed locking state. The doors will automatically lock five seconds after the last door is closed.
- Object Detection – The object detection system sends various chime requests to the radio or audio amplifier during normal operation.

Additional Warnings

The following warnings have an associated instrument cluster indicator or driver information center message:

- Turn Signal Indicators – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Vehicle Overspeed Message – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Fuel Level Low Message – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Oil Pressure Indicator – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Tire Pressure Low Indicator – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Antilock Brake Indicator – The radio or audio amplifier activates the audible warning as requested by the electronic brake control module.
- Engine Cooling System Messages – The radio or audio amplifier activates the audible warning as requested by the engine control module.
- Transmission Messages – The radio or audio amplifier activates the audible warning as requested by the transmission control module.

Backup Alarm (with 8S3)

When transmission placed in reverse, the Body Control Module (BCM) activates the KR61 Trailer Backup Lamps Relay which supplies 12V to the reverse lamps and the Backup Alarm simultaneously.

Head-Up Display Description and Operation

The head-up display projects an image on the windshield that is viewed from the driver seat. Information that is relevant to what the drive is currently doing is displayed, as well as any safety-critical information as it is happening.

The components of the head-up display are:

- Head-Up Display
- Instrument Cluster
- Head-Up Display Switch

Head-Up Display

The head-up display is a slave device to the instrument cluster. The head-up display is powered through ignition voltage and ground. It communicates directly with instrument cluster via serial data and only has limited self-diagnosis capacity. Head-up display DTCs are reported through the instrument cluster.

The head-up display projects a full color image onto the windshield and is only viewable from the driver seat. The image location and brightness is adjustable using the head-up display switch. The image information is received from the instrument cluster through a video cable.

Instrument Cluster

The instrument cluster sends the image information to the head-up display via a discrete video cable. The image sent to the head-up display is closely related to the information currently being displayed on the instrument cluster or driver information center. For example, if an incoming phone call is displayed in the cluster, this information will be displayed on the head-up display. If a navigation alert is shown in the cluster, then a turn-by-turn alert will display on the head-up display. When the operator interacts with the instrument cluster using the steering wheel mounted driver information center switch, the head-up display also responds to the interaction. If the operator dismisses the navigation alert on the instrument cluster, it is also removed from the head-up display.

Head-Up Display Switch

The head-up display switch is a multiplexed switch that controls the head-up display based on driver inputs. The head-up display provides the switch with a low reference and monitors a signal circuit. The head-up display switch is made up of a resistor ladder and three switches: Dim +/-, Up/Down, and Page. When a switch is pressed, the signal voltage is pulled low through the resistor ladder. When pressed, each of the switches will result in a different signal voltage seen by the head-up display, depending on the switch’s location on the resistor ladder.

Head-Up Display Operation

In normal operation, the operator may select from three different display configurations. These display configurations provide the operator with different information, with the vehicle speed being the primary item, along with the following standard indicators:

- Turn signal indicators
- High beam indicator
- Lane departure warning indicator (if equipped)
- Vehicle detected ahead indicator (if equipped)
- Adaptive cruise control on indicator (if equipped)

Standard/Speed Configuration

The head-up display projects only the vehicle speed. Additionally, the outside air temperature, compass, and time may also be displayed.

Audio Configuration

The head-up display will project the current audio information when listening to the audio system and the active phone information if the operator is on a phone call.

Navigation Configuration

The head-up display will project navigation information. If a current route is being followed, turn by turn instructions and arrows will be displayed. If no route is programed, the compass heading is displayed.

Performance Configuration

The head-up display will project RPM and PRNDL information.

Adaptive Cruise Control Configuration (if equipped)

The head-up display will project the selected following distance when adaptive cruise control is active.

Indicator/Warning Message Description and Operation

INDICATOR LIGHT ON

Refer to the OWNER’S MANUAL for the descriptions and explanations of all indicator lights.

For diagnosis and repair information related to an indicator light refer to the System Diagnosis and the Description of Operation that the message relates to.

MESSAGE DISPLAYED

Refer to the OWNER’S MANUAL for descriptions and explanations of all messages displayed.

For diagnosis and repair information related to a displayed message refer to the System Diagnosis and the Description of Operation that the message relates to.

CHANGE TIMING BELT MESSAGE

The Instrument Cluster monitors the odometer mileage to determine when timing belt (if equipped) replacement may be necessary. After the vehicle has accumulated approximately 100,000 miles (160,000 kilometers), the Instrument Cluster may display the CHANGE TIMING BELT message. After the engine timing belt has been replaced, reset the CHANGE TIMING BELT message by locating and removing the fuses that supply power to the Instrument Cluster for two minutes.

BRAKES OVERHEATED

The Electronic Brake Control Module monitors brake usage and compares it to an internal thermal model to determine if the brakes could become overheated. If the Electronic Brake Control Module determines the brakes pads have exceeded a desirable temperature based on the thermal model, it sends a serial data message to the Instrument Cluster to display the BRAKES OVERHEATED message. The message remains displayed until the estimated temperature returns to a desirable range.

Transmission Shift Lever Position Indicator

The Transmission Shift Lever Position Indicator (if equipped) is located on the center console and indicates the current transmission shift lever position. The Transmission Shift Lever Position Indicator receives power and ground and is controlled by the Body Control Module (BCM) via serial data. The Transmission Control Module determines transmission shift lever position based on signals from the Transmission Internal Mode Switch and sends the shift lever position information to the BCM via serial data.

Instrument Cluster Description and Operation

Instrument Cluster (with RPO UDC)

The instrument cluster is a multifunction module that provides the vehicle operator with information that is critical to vehicle operation, such as vehicle speed, engine RPM, oil pressure, battery voltage, fuel level, and coolant temperature, using analog gauges. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. The driver information center is a one color multifunction display that is located in the instrument cluster. The driver information center has several screens that can be scrolled through by twisting the trip reset stem.

Instrument Cluster (with RPO UDD)

The instrument cluster is a multifunction module that provides the vehicle operator with information that is critical to vehicle operation, such as vehicle speed, engine RPM, oil pressure, battery voltage, fuel level, and coolant temperature, using analog gauges. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. The driver information center is a full color multifunction display that is located in the instrument cluster. The driver information center is also tightly integrated with the vehicle’s infotainment system and is highly reconfigurable.

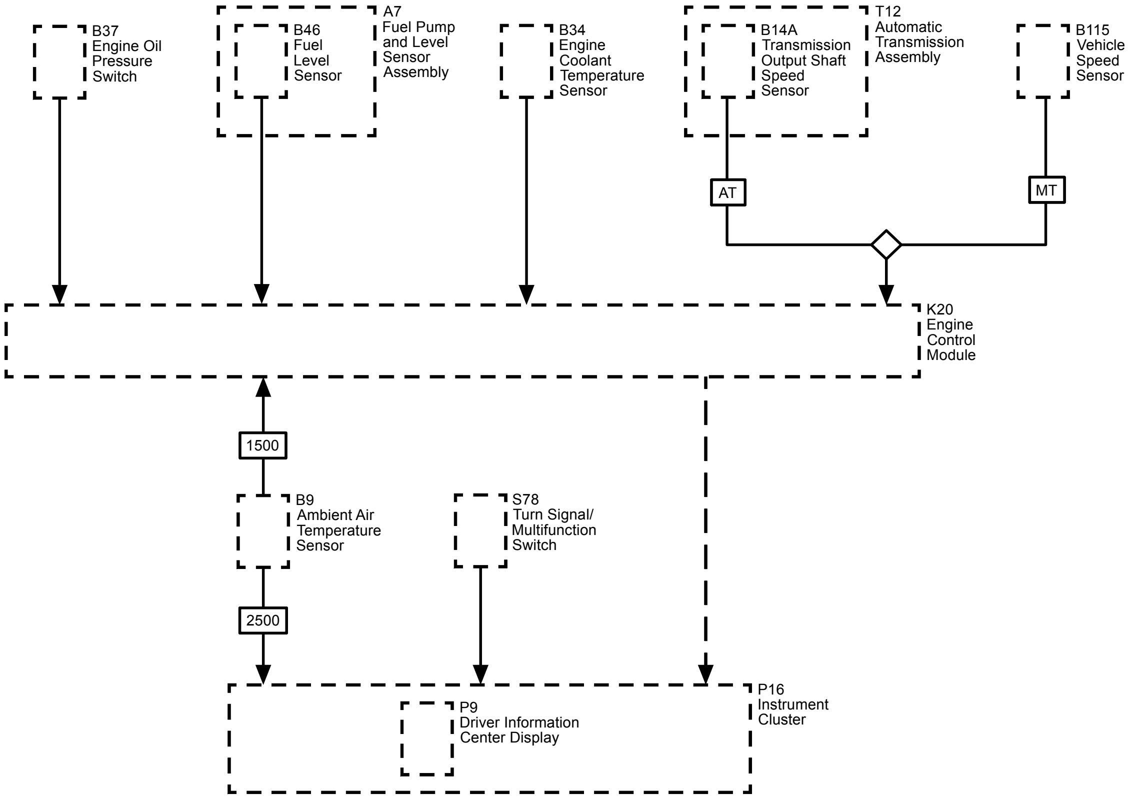
Instrument Cluster (with RPO UHS)

The instrument cluster is a multifunction module that provides the vehicle operator with information such as vehicle speed and engine RPM using analog gauges. Oil pressure, battery voltage, fuel level, and coolant temperature can also be displayed using an interactive LCD display. The instrument cluster is highly reconfigurable, with four different themes available for selection. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. Because the instrument cluster is an LCD display, driver information center elements are located in various zones of the display, depending on how the instrument panel is configured.

Instrument Cluster (with RPO UDV)

The instrument cluster is a multifunction module that provides the vehicle operator with information that is critical to vehicle operation, such as vehicle speed, engine RPM, and coolant temperature, using an interactive LCD display. The instrument cluster is highly reconfigurable, with four different themes available for selection. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. Because the instrument cluster is an LCD display, driver information center elements are located in various zones of the display, depending on how the instrument panel is configured.

Displays and Gauges Block Diagram



Indicators and Warning Messages

Refer to Indicator/Warning Message Description and Operation.

Engine Coolant Temperature Gauge

The instrument cluster displays the engine coolant temperature as determined by the engine control module (ECM). The ECM sends the engine coolant temperature information via serial data to the body control module (BCM). The BCM then sends the information via a serial data to the instrument cluster to display the engine coolant temperature.

Engine Oil Pressure Gauge (if equipped)

The IPC displays the engine oil pressure as determined by the ECM. The ECM monitors the engine oil pressure sensor. The IPC receives a serial data message from the ECM indicating the engine oil pressure. The engine oil pressure gauge defaults to 0 kPa (0 psi) or below if:

- The ECM detects a malfunction in the engine oil pressure sensor signal circuit.

- The IPC detects a loss of serial data communication with the ECM.

Fuel Level Gauge

The instrument cluster displays the fuel level based on the information from the ECM. The ECM converts the data from the fuel level sensors to a fuel level signal. The ECM sends the fuel level signal via serial data to the BCM. The BCM then sends the information via serial data to the instrument cluster to display the fuel level. If the fuel level falls under 11% the instrument cluster will illuminate the low fuel level indicator. The fuel gauge defaults to empty if:

- The ECM detects a malfunction in the fuel level sensor circuit.
- The BCM detects a loss of serial data communications with the ECM.
- The instrument cluster detects a loss of serial data communications with the BCM.

Speedometer

The instrument cluster displays the vehicle speed based on the information from the ECM. The ECM sends the vehicle speed information via serial data to the BCM. The BCM then sends the vehicle speed information via serial data to the instrument cluster to display the vehicle speed.

Odometer

The instrument cluster displays the vehicle odometer in the driver information center. The ECM send a distance rolling count message via serial data to the body control module (BCM). The BCM uses this information to calculate the vehicle odometer. This odometer value is then sent to the instrument cluster. The instrument cluster does not calculate the odometer.

The odometer value is stored in multiple modules. The instrument cluster is a secondary storage module for the odometer, while the BCM is the primary storage and accumulator.

In addition to storing the odometer value for the vehicle, the instrument cluster and the BCM store the VIN. Software checks are performed to ensure these modules, and their stored odometer information, can not be move or transferred between different vehicles.

Tachometer

The instrument cluster displays the engine speed based on the information from the ECM. The ECM converts the data from the crankshaft position sensor to an engine revolution signal. The ECM sends the engine speed information via serial data to the BCM. The BCM then sends the information via serial data to the instrument cluster to display the engine speed.

Compass

The vehicle compass information is gather through the compass module or vehicle communication interface module (VCIM). The compass module or VCIM determines vehicle direction and communicates this with the BCM through serial data. The BCM sends the compass information to the instrument cluster via serial data, where it is displayed.

Outside Air Temperature (1500 series)

The Ambient Air Temperature Sensor is located behind the grille and varies it’s resistance with temperature. The Engine Control Module (ECM) reads the resistance value to determine temperature. The time of and rate of the temperature update is based on an algorithm in the ECM software. Factors such as, last reading, current reading, length of time vehicle is been off/on, power mode, vehicle speed, driven distance, and sensor location are all considered by the ECM to know when to update the displayed temperature. For example, if the sensor is located near the engine compartment, and the vehicle has been turned off for only 10 minutes then restarted, the ECM will wait until the vehicle is driven to get more accurate air flow across the sensor before it updates the display.

Outside Air Temperature (2500 series)

The Ambient Air Temperature Sensor is located behind the grille and varies it’s resistance with temperature. The Instrument Cluster reads the resistance value to determine temperature. The time of and rate of the temperature update is based on an algorithm in the Instrument Cluster software. Factors such as, last reading, current reading, length of time vehicle is been off/on, power mode, vehicle speed, driven distance, and sensor location are all considered by the Instrument Cluster to know when to update the displayed temperature. For example, if the sensor is located near the engine compartment, and the vehicle has been turned off for only 10 minutes then restarted, the Instrument Cluster will wait until the vehicle is driven to get more accurate air flow across the sensor before it updates the display.

Driver Information Center Display (with RPO UDD)

The driver information center is located in the lower middle portion of the instrument cluster, between the speedometer and the tachometer. The driver information center displays information about the vehicle and allows the operator to access applications. It also displays warning messages if a system problem is detected.

The driver information center is made up of three zones. The left zone is a list of the applications that can be displayed. The right zone contains choices to customize what information is displayed for the respective application chosen. In the middle is the interactive application display zone. The application display zone allows access to the navigation application, audio application, phone application, or settings applications. The information display zone contains multiple pages that display vehicle information. The compass and PRNDL are displayed at all times in the lower portion of the display zone.

The driver information center can also be configured with several different themes. Changing the theme is accomplished using the infotainment system faceplate settings page. The chosen theme is used for both the faceplate and the driver information center displays.

Instrument Cluster Configuration (with RPO UHS, UDV)

The instrument cluster is highly interactive and reconfigurable. The operator can select from four different display configures and each of these configuration may contain one, two, or three separate display zones. Regardless of which configuration is selected, the vehicle odometer and PRNDL are always displayed in the lower left and lower right corners of the display.

The different display configurations are:

- Simple – The most basic of the available configurations, the Simple configuration includes four static information display zones and one interactive information display zone. The infotainment display zone is located on the left side of the display and displays phone, turn-by-turn navigation, and audio information. The speedometer and compass are located in the upper middle of the display. On the right side of the display is a graphical representation of the fuel level and fuel range.

  Below the speedometer, in the lower middle of the display, is the interactive information display zone. The information display zone contains multiple pages that can be scrolled through and selected using the steering wheel mounted driver information center switch.

- Performance – The Performance configuration contains three static information zones, one interactive information display zone, and one interactive application display zone. The speedometer and tachometer/fuel level gauge are located on the left and right of the display. In between the speedometer and tachometer is a static information display zone that displays current information while the operator scrolls through other pages in the interactive application display zone.

  In the middle of the speedometer is an interactive information display zone. This display zone has a limited number of selection and will only display a digital speedometer, a navigation map, a settings page with sub-menus, or a blank page.

Below the tachometer and extending into the lower middle of the display is an interactive application display zone. The application display zone allows access to the navigation application, audio application, phone application, settings application, or information application. Unlike the information display zone that is located within the speedometer, the information application is fully featured and allows access to all available information pages.

- Balanced – The Balanced configuration contains three static information zones, two interactive information display zones, and one interactive application display zone. The tachometer is located on the left side of the display, the speedometer in the middle, and the coolant temperature/fuel level gauge on the right.

  Located in the tachometer is an interactive information display zone.

  In the speedometer is an interactive information display zone. This display zone has a limited number of selection and will only display a digital speedometer, a navigation map, a settings page with sub-menus, or a blank page.

  An interactive application display zone is located in the coolant temperature/fuel level gauge. The application display zone allows access to the navigation application, audio application, phone application, or settings application.

- Enhanced – The Enhanced configuration contains four static information zones, two interactive information display zones, and one interactive application display zone. The speedometer in the upper middle of the display, a navigation map or compass in located on the upper left, and a fuel level gauge and fuel range display on the right.

  Located on the left and right lower portion of the display are interactive information display zones.

  An interactive application display zone is located in the middle of the display. The application display zone allows access to the navigation application, audio application, phone application, or settings application.

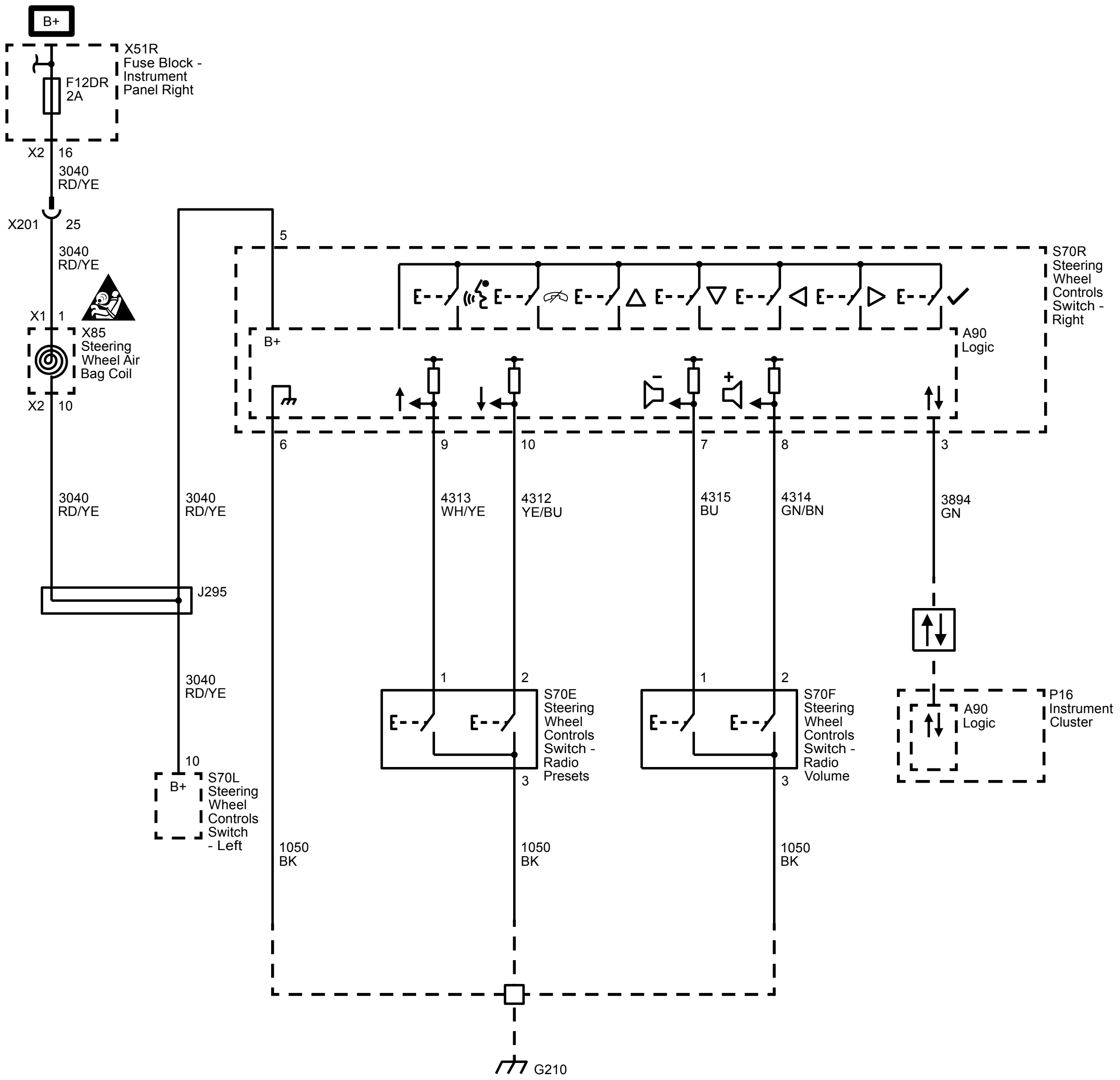
Driver Information and Entertainment

Secondary and Configurable Customer Controls

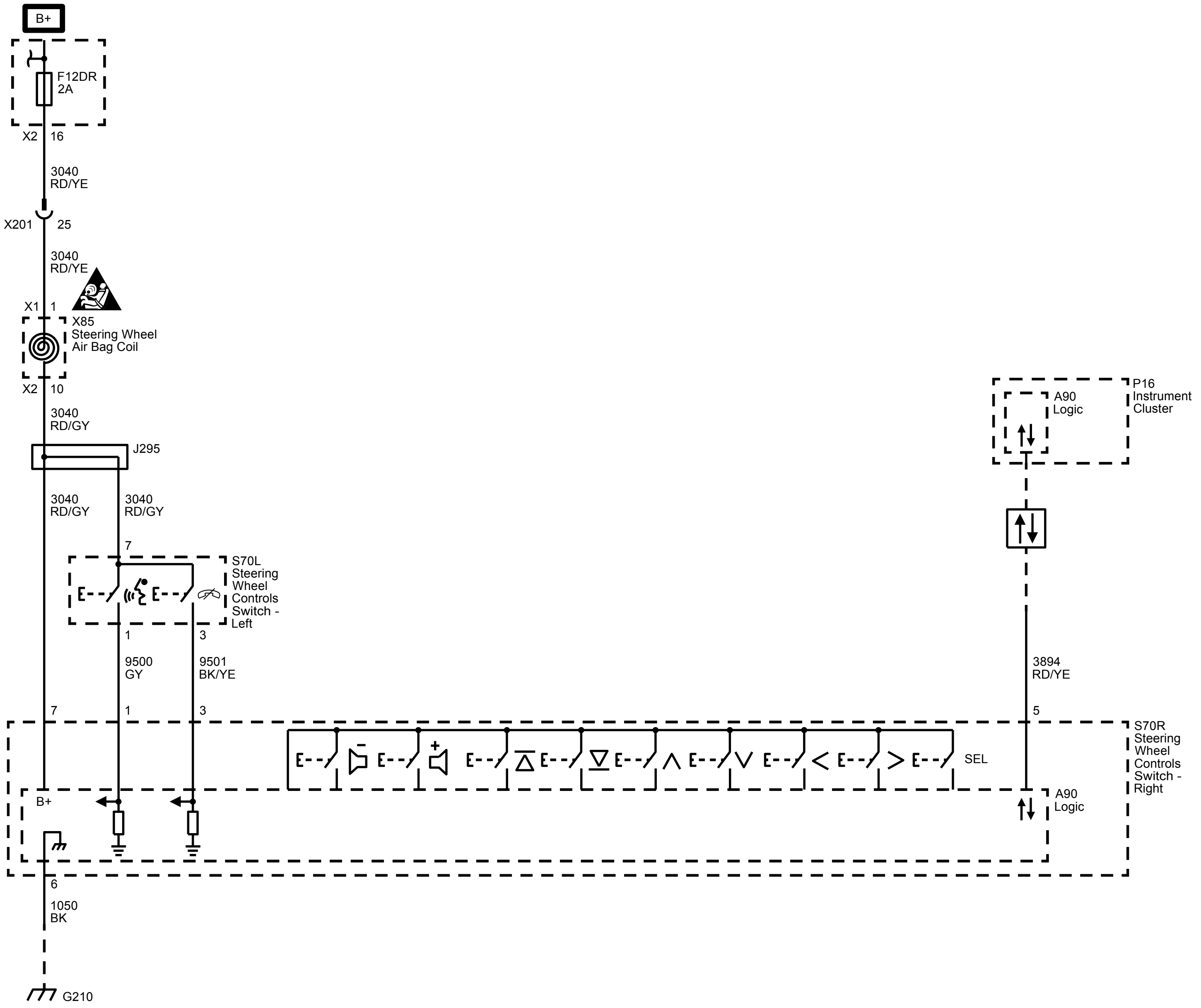
Schematic and Routing Diagrams

Steering Wheel Secondary/Configurable Control Schematics

Steering Wheel Radio Controls (X88 or Z88 with UK3)

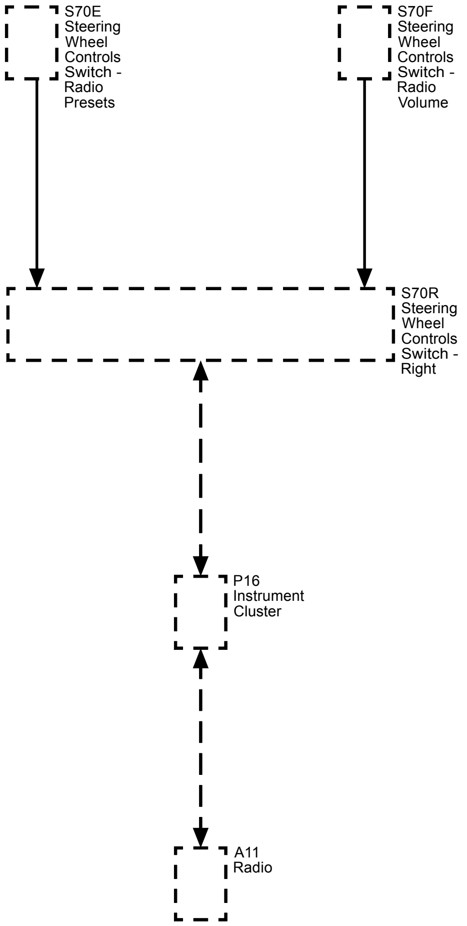

B+
X51R Fuse Block - Instrument Panel Right
F12DR 2A
X2 16
3040 RD/YE
X201 25
3040 RD/YE
X1 1
X85 Steering Wheel Air Bag Coil
X2 10
3040 RD/YE
3040 RD/YE
J295
3040 RD/YE
10
S70L Steering Wheel Controls Switch - Left
B+
5
S70R Steering Wheel Controls Switch - Right
B+
A90 Logic
−
+
6
9
10
7
8
3
4313 WH/YE
4312 YE/BU
4315 BU
4314 GN/BN
3894 GN
1
2
S70E Steering Wheel Controls Switch - Radio Presets
3
1
2
S70F Steering Wheel Controls Switch - Radio Volume
3
P16 Instrument Cluster
A90 Logic
1050 BK
1050 BK
1050 BK
G210

Steering Wheel Radio Controls (Z75)


B+
F12DR
2A
X2
16
3040
RD/YE
X201
25
3040
RD/YE
X1
1
X85
Steering Wheel
Air Bag Coil
X2
10
3040
RD/GY
J295
3040
RD/GY
3040
RD/GY
7
S70L
Steering
Wheel
Controls
Switch -
Left
1
3
9500
GY
9501
BK/YE
7
1
3
P16
Instrument
Cluster
A90
Logic
3894
RD/YE
5
S70R
Steering
Wheel
Controls
Switch -
Right
SEL
B+
A90
Logic
6
1050
BK
G210

Steering Wheel Controls Description and Operation

Secondary Controls Block Diagram


S70E Steering Wheel Controls Switch - Radio Presets
S70F Steering Wheel Controls Switch - Radio Volume
S70R Steering Wheel Controls Switch - Right
P16 Instrument Cluster
A11 Radio

The steering wheel control switches duplicate the function of the primary controls of the associated component, through a network of momentary contact switches.

The Steering Wheel Controls are divided into a right-hand set and left-hand set. The right-hand switch is connected to the IPC LIN serial data and provides input from the left-hand, left-hand rear, and right-hand rear switches

The right-hand switch controller consists of UP/DOWN/LEFT/RIGHT directional, center “select” , Push-to-Talk, and Mute buttons. The LEFT/RIGHT buttons navigate the display regions of the cluster. The UP/DOWN buttons navigate the menus. The right-hand rear switch consists of volume up and volume down buttons. The left-hand rear switch consists of favorite up and favorite down buttons.

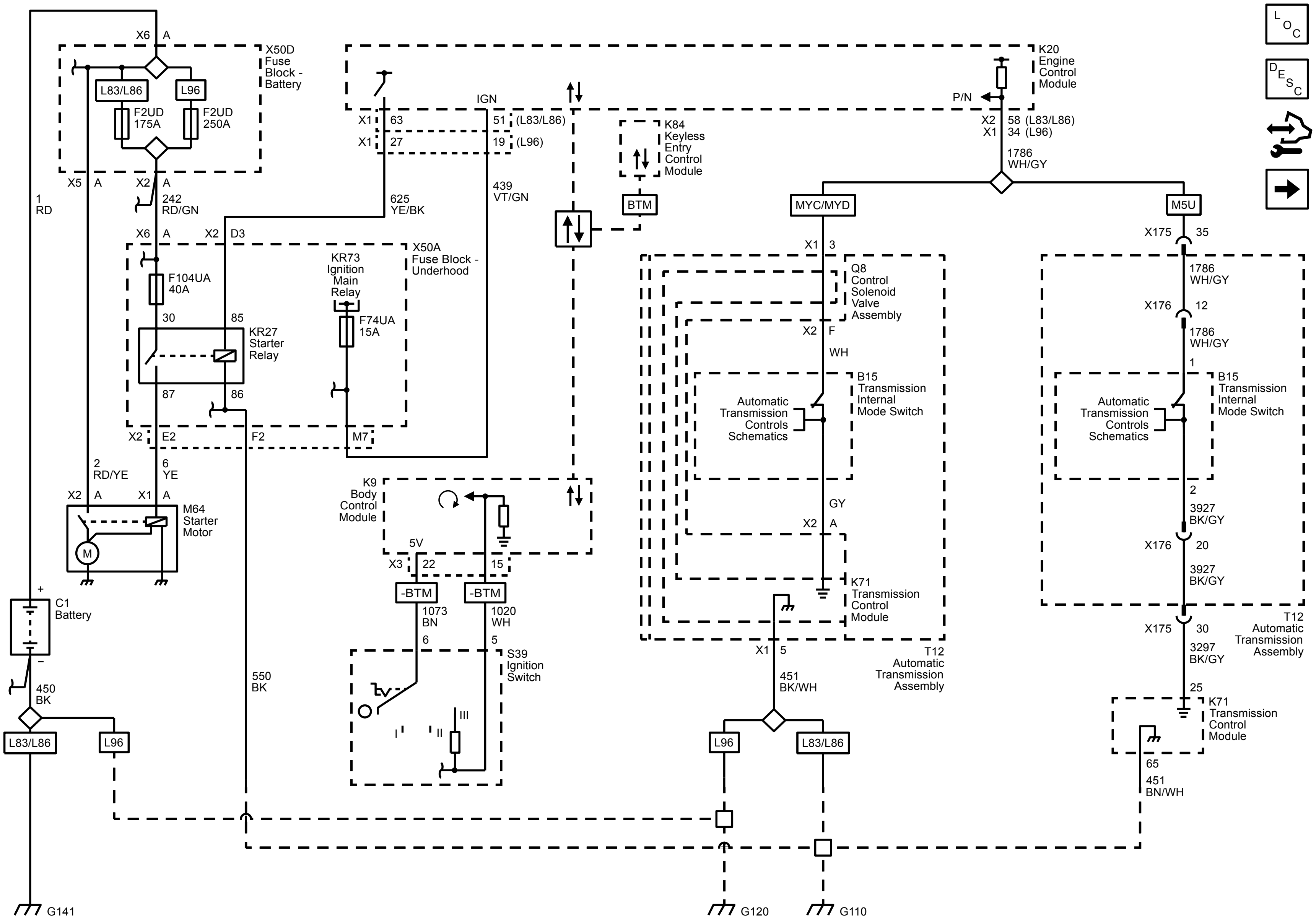
Engine/Propulsion

12 V Starting and Charging

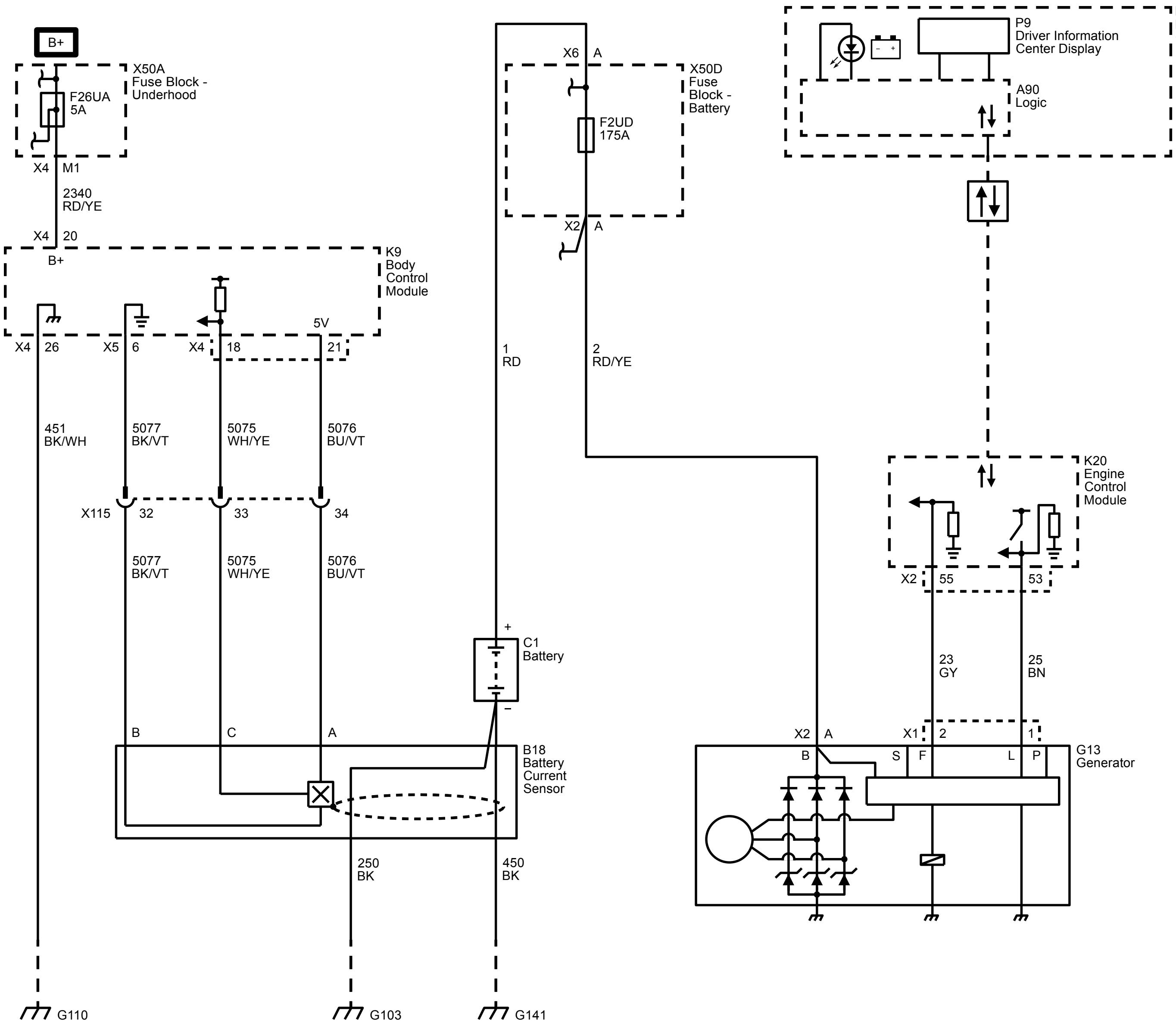
Schematic and Routing Diagrams

Starting and Charging Schematics

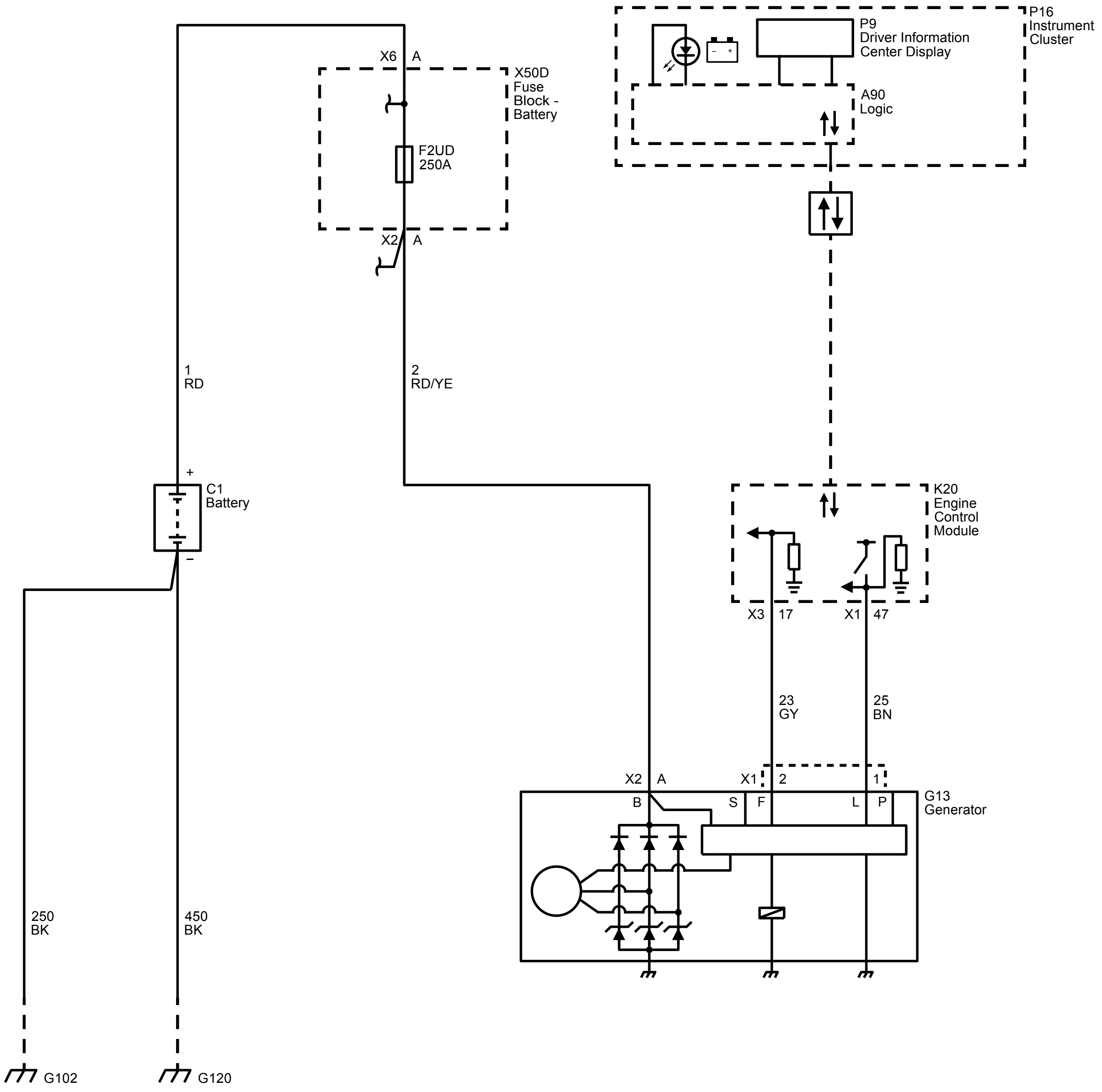
Starting System


X6 A
X50D Fuse Block - Battery
L83/L86
L96
F2UD 175A
F2UD 250A
X5 A
X2 A
1 RD
242 RD/GN
X6 A
X2 D3
F104UA 40A
30
85
KR27 Starter Relay
87
86
KR73 Ignition Main Relay
F74UA 15A
X50A Fuse Block - Underhood
X2 E2
F2
M7
2 RD/YE
6 YE
X2 A
X1 A
M64 Starter Motor
M
C1 Battery
+
450 BK
L83/L86
L96
G141
X1 63
X1 27
IGN
51 (L83/L86)
19 (L96)
625 YE/BK
439 VT/GN
550 BK
K9 Body Control Module
5V
X3 22
15
-BTM
-BTM
1073 BN
1020 WH
6
5
S39 Ignition Switch
I
II
III
K84 Keyless Entry Control Module
BTM
K20 Engine Control Module
P/N
X2 58 (L83/L86)
X1 34 (L96)
1786 WH/GY
MYC/MYD
M5U
X1 3
Q8 Control Solenoid Valve Assembly
X2 F
WH
B15 Transmission Internal Mode Switch
Automatic Transmission Controls Schematics
GY
X2 A
K71 Transmission Control Module
X1 5
T12 Automatic Transmission Assembly
451 BK/WH
L96
L83/L86
G120
G110
X175 35
1786 WH/GY
X176 12
1786 WH/GY
1
B15 Transmission Internal Mode Switch
Automatic Transmission Controls Schematics
2
3927 BK/GY
X176 20
3927 BK/GY
X175 30
T12 Automatic Transmission Assembly
3297 BK/GY
25
K71 Transmission Control Module
65
451 BN/WH
LOC
DESC

Charging (L83 or L86)


B+
X50A
Fuse Block -
Underhood
F26UA
5A
X4
M1
2340
RD/YE
X4
20
B+
K9
Body
Control
Module
5V
X4
26
X5
6
X4
18
21
451
BK/WH
5077
BK/VT
5075
WH/YE
5076
BU/VT
X115
32
33
34
5077
BK/VT
5075
WH/YE
5076
BU/VT
B
C
A
B18
Battery
Current
Sensor
250
BK
450
BK
G110
G103
G141
X6
A
X50D
Fuse
Block -
Battery
F2UD
175A
X2
A
1
RD
2
RD/YE
+
C1
Battery
–
P9
Driver Information
Center Display
P16
Instrument
Cluster
A90
Logic
K20
Engine
Control
Module
X2
55
53
23
GY
25
BN
X2
A
X1
2
1
B
S
F
L
P
G13
Generator

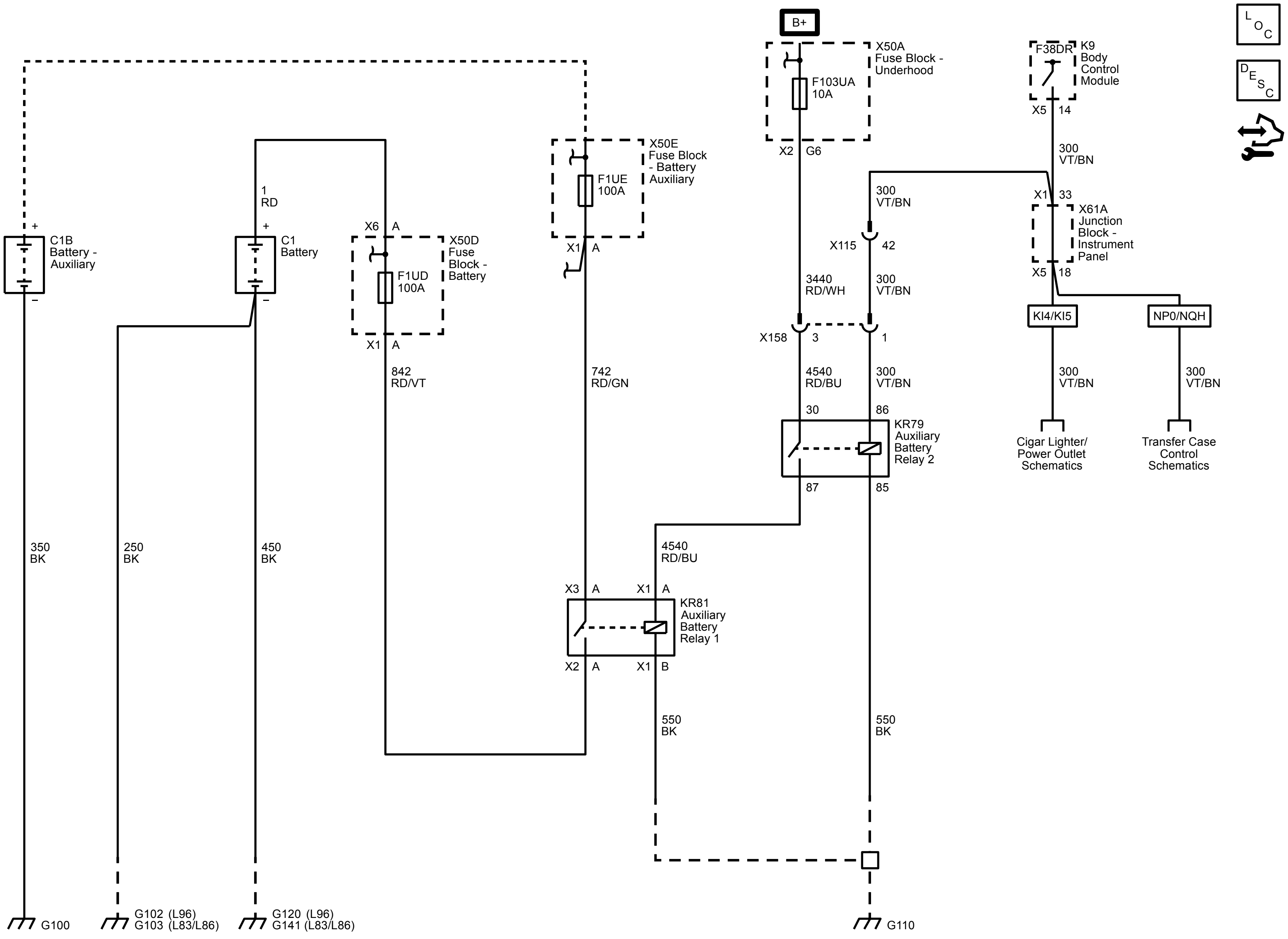
Charging (L96)


X6
A
X50D
Fuse
Block -
Battery
F2UD
250A
X2
A
P9
Driver Information
Center Display
P16
Instrument
Cluster
A90
Logic
1
RD
2
RD/YE
+
C1
Battery
-
K20
Engine
Control
Module
X3
17
X1
47
23
GY
25
BN
X2
A
X1
2
1
G13
Generator
B
S
F
L
P
250
BK
450
BK
G102
G120

LOC
DESC

Auxiliary Battery Schematics

Auxiliary Battery Relays (5W4 or 9C1)


B+
X50A Fuse Block - Underhood
F103UA 10A
X2 G6
F38DR
K9 Body Control Module
X5 14
300 VT/BN
X1 33
X61A Junction Block - Instrument Panel
X5 18
KI4/KI5
NP0/NQH
300 VT/BN
300 VT/BN
Cigar Lighter/ Power Outlet Schematics
Transfer Case Control Schematics
X50E Fuse Block - Battery Auxiliary
F1UE 100A
X1 A
X50D Fuse Block - Battery
X6 A
F1UD 100A
X1 A
C1B Battery - Auxiliary
C1 Battery
+
−
1 RD
842 RD/VT
742 RD/GN
300 VT/BN
X115 42
3440 RD/WH
300 VT/BN
X158 3
1
4540 RD/BU
300 VT/BN
30
86
KR79 Auxiliary Battery Relay 2
87
85
4540 RD/BU
X3 A
X1 A
KR81 Auxiliary Battery Relay 1
X2 A
X1 B
550 BK
550 BK
350 BK
250 BK
450 BK
G100
G102 (L96)
G103 (L83/L86)
G120 (L96)
G141 (L83/L86)
G110
LOC
DESC

Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- **Always shield your eyes and avoid leaning over the battery whenever possible.**
- **Do not expose the battery to open flames or sparks.**
- **Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.**
- **Follow each step of the jump starting procedure in order.**
- **Treat both the booster and the discharged batteries carefully when using the jumper cables.**

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- It monitors the battery voltage and estimates the battery condition.
- It takes corrective actions by boosting idle speeds, and adjusting the regulated voltage.
- It performs diagnostics and driver notification.

The battery condition is estimated during ignition-off and during ignition-on. During ignition-off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

The state-of-charge can be used as a diagnostic tool to tell the customer or the dealer the condition of the battery. Throughout ignition-on, the algorithm continuously estimates state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and temperature.

While running, the battery degree of discharge is primarily determined by a battery current sensor, which is integrated to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

The Charging System Description and Operation is divided into 3 sections. The first section describes the charging system components and their integration into the electrical power management. The second section describes charging system operation. The third section describes the instrument panel cluster operation of the charge indicator, driver information center messages, and voltmeter operation.

Charging System Components

Generator

The generator is a serviceable component. If there is a diagnosed failure of the generator it must be replaced as an assembly. The engine drive belt drives the generator. When the rotor is spun it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator. It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit failure, the generator defaults to an output voltage of 13.8 V.

Body Control Module (BCM)

The body control module (BCM) is a GMLAN device. It communicates with the engine control module (ECM) and the instrument panel cluster for electrical power management (electrical power management) operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors a battery current sensor, the battery positive voltage circuit, and estimated battery temperature to determine battery state of charge. The BCM performs idle boost.

Battery Current Sensor

The battery current sensor is a serviceable component that is connected to either the negative or positive battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5-volt pulse width modulation (PWM) signal of 128 Hz with a duty cycle of 0–100 percent. Normal duty cycle is between 5–95 percent. Between 0–5 percent and 95–100 percent are for diagnostic purposes.

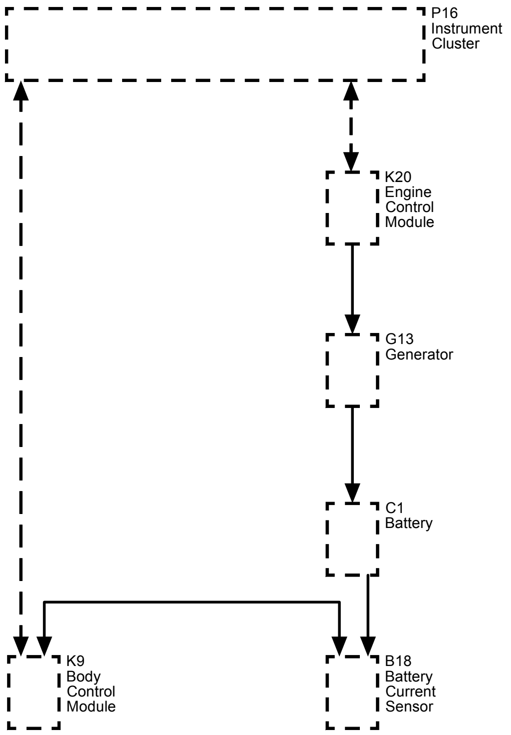
Engine Control Module (ECM)

When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Panel Cluster

The instrument panel cluster provides the customer notification in case a concern with the charging system. There are 2 means of notification, a charge indicator and a driver information center message of SERVICE BATTERY CHARGING SYSTEM if equipped.

Charging System Block Diagram


P16
Instrument
Cluster
K20
Engine
Control
Module
G13
Generator
C1
Battery
K9
Body
Control
Module
B18
Battery
Current
Sensor

Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Headlamp Mode
- Start Up Mode
- Voltage Reduction Mode

The engine control module (ECM) controls the generator through the generator turn ON signal circuit. The ECM monitors the generator performance though the generator field duty cycle signal circuit. The signal is a pulse width modulation (PWM) signal of 128 Hz with a duty cycle of 0–100 percent. Normal duty cycle is between 5–95 percent. Between 0–5 percent and 95–100 percent are for diagnostic purposes. The following table shows the commanded duty cycle and output voltage of the generator:

Commanded Duty Cycle	Generator Output Voltage
10%	11 V
20%	11.56 V
30%	12.12 V
40%	12.68 V
50%	13.25 V
60%	13.81 V
70%	14.37 V

80%	14.94 V
90%	15.5 V

The generator provides a feedback signal of the generator voltage output through the generator field duty cycle signal circuit to the ECM. This information is sent to the body control module (BCM). The signal is PWM signal of 128 Hz with a duty cycle of 0–100 percent. Normal duty cycle is between 5–99 percent. Between 0–5 percent and 100 percent are for diagnostic purposes.

Battery Sulfation Mode

The BCM will enter this mode when the interpreted generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met.

- The wipers are ON for more than 3 seconds.
- GMLAN (Climate Control Voltage Boost Mode Request) is true, as sensed by the HVAC control head. High speed cooling fan, rear defogger and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0°C (32°F).
- Battery State of Charge is less than 80 percent.
- Vehicle speed is greater than 145 km/h (90 mph)
- Current sensor fault exists.
- System voltage was determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 amperes and greater than −8 amperes, and the battery state-of-charge is greater than or equal to 80 percent. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the headlamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 seconds.

Voltage Reduction Mode

The BCM will enter Voltage Reduction Mode when the calculated ambient air temperature is above 0°C (32°F). The calculated battery current is less than 1 ampere and greater than −7 amperes, and the generator field duty cycle is less than 99 percent. Its targeted generator output voltage is 12.9 V. The BCM will exit this mode once the criteria are met for Charge Mode.

Instrument Panel Cluster Operation

Charge Indicator Operation

The instrument panel cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The engine control module (ECM) detects that the generator output is less than 11 V or greater than 16 V. The instrument panel cluster receives a GMLAN message from the ECM requesting illumination.
- The instrument panel cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 seconds. The instrument panel cluster receives a GMLAN message from the body control module (BCM) indicating there is a system voltage range concern.
- The instrument panel cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 seconds.

Display Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is commanded ON when a charging system DTC is a current DTC. The message is turned OFF when the conditions for clearing the DTC have been met.

Electrical Power Management Description and Operation

Electrical Power Management

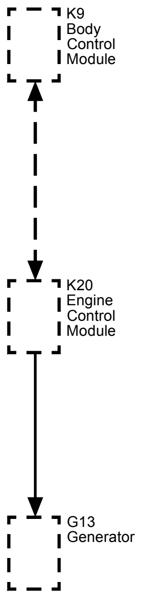
The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is activated in incremental steps. For example, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Electrical Power Management Block Diagram



Idle Boost and Load Shed With Current Sensor

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 Ah	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 11 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −10°C (14°F)	Greater Than 12 V	Battery has a net loss less than 0.2 Ah	First level Idle boost request cancelled
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 Ah	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 11 V	—	Second level Idle boost requested

Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 Ah	Second level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 Ah	Clear Load Shed 1
Idle Boost 3 Start	—	—	Battery has a net loss of 10 Ah	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 11 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 Ah	Third level Idle boost request cancelled
Load Shed 2 Start	—	—	Battery has a net loss greater than 12 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12 V	Battery has a net loss of less than 8 Ah	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 13 Ah	Clear Load Shed 3

Idle Boost and Load Shed Without Current Sensor (based on battery voltage)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 12.6 V	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	—	First level Idle boost request cancelled
Idle Boost 1 End	—	Greater Than 13 V	First level Idle boost request cancelled
Idle Boost 2 Start	—	Less Than 12.4 V	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12.5 V	Second level Idle boost request cancelled
Load Shed 1 Start	—	Less Than 12.3 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12.4 V	Clear Load Shed 1
Idle Boost 3 Start	—	Less Than 10 V	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12.3 V	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 12.1 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.2 V	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.0 V	Clear Load Shed 3

Starting System Description and Operation

The starter motors are non-repairable starter motors. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

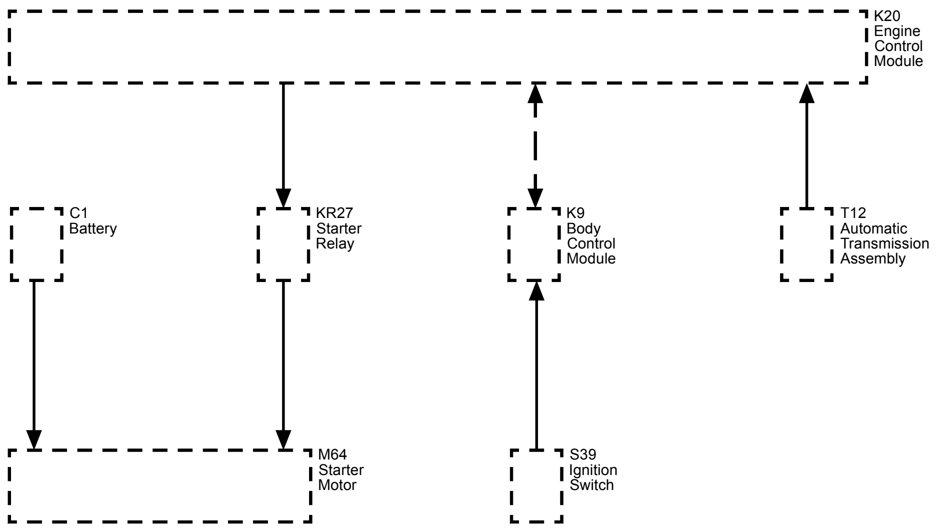
When the ignition switch is released from the START position, the START relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Circuit Description (Key Start)

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Starting System Block Diagram



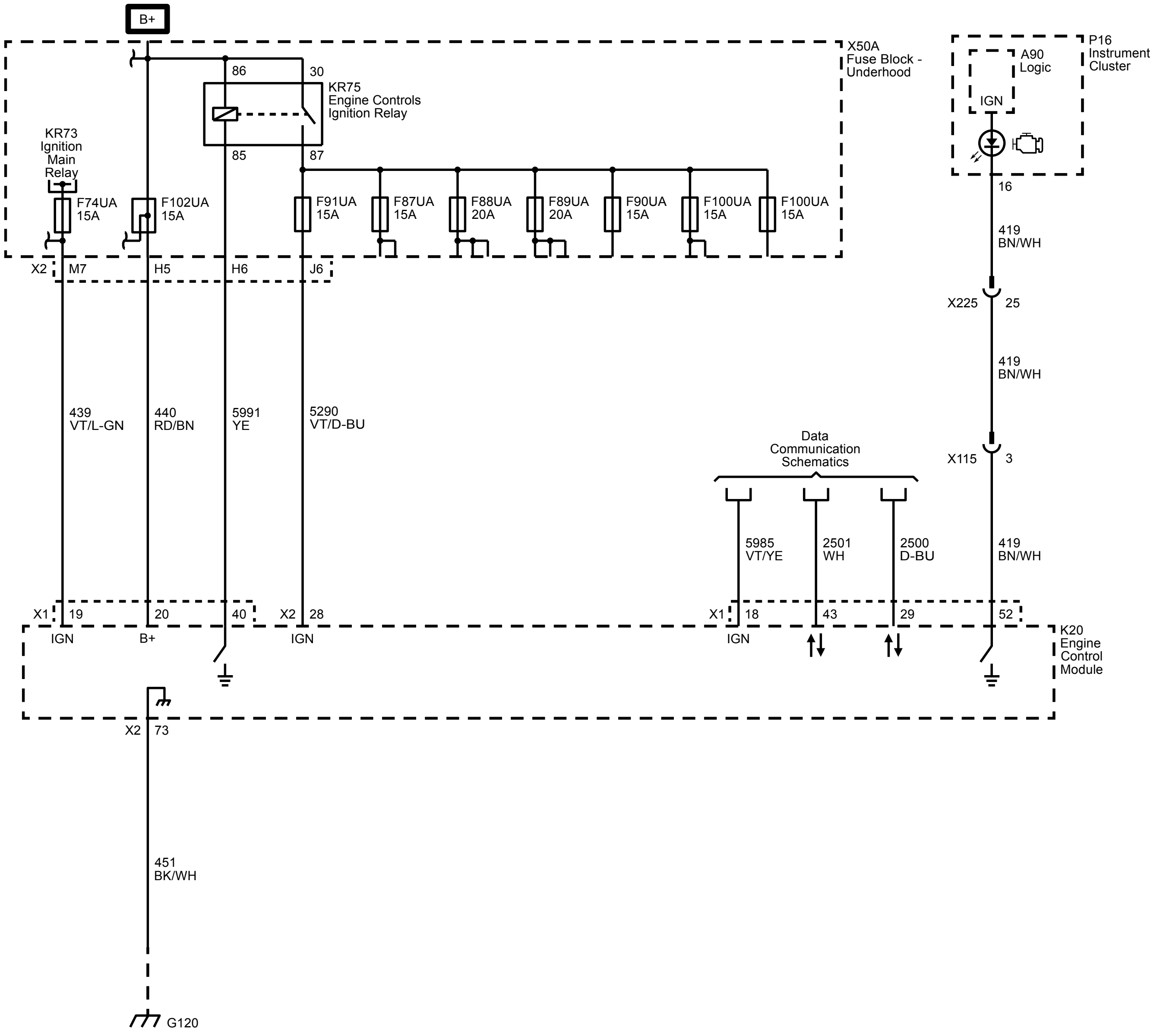
Engine/Propulsion

Engine Controls and Fuel - 6.0L (L96)

Schematic and Routing Diagrams

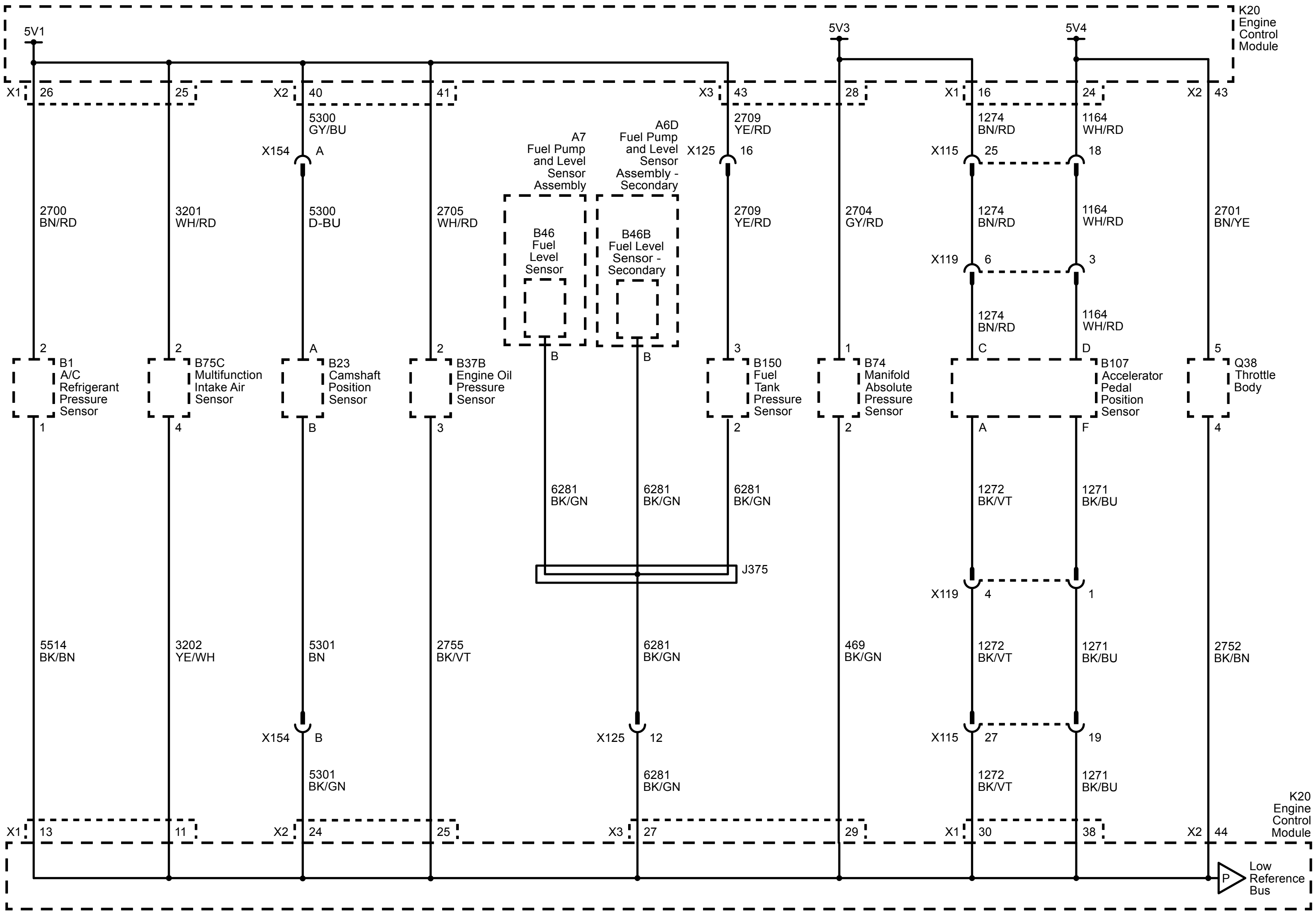
Engine Controls Schematics

Power, Ground, Serial Data, and MIL

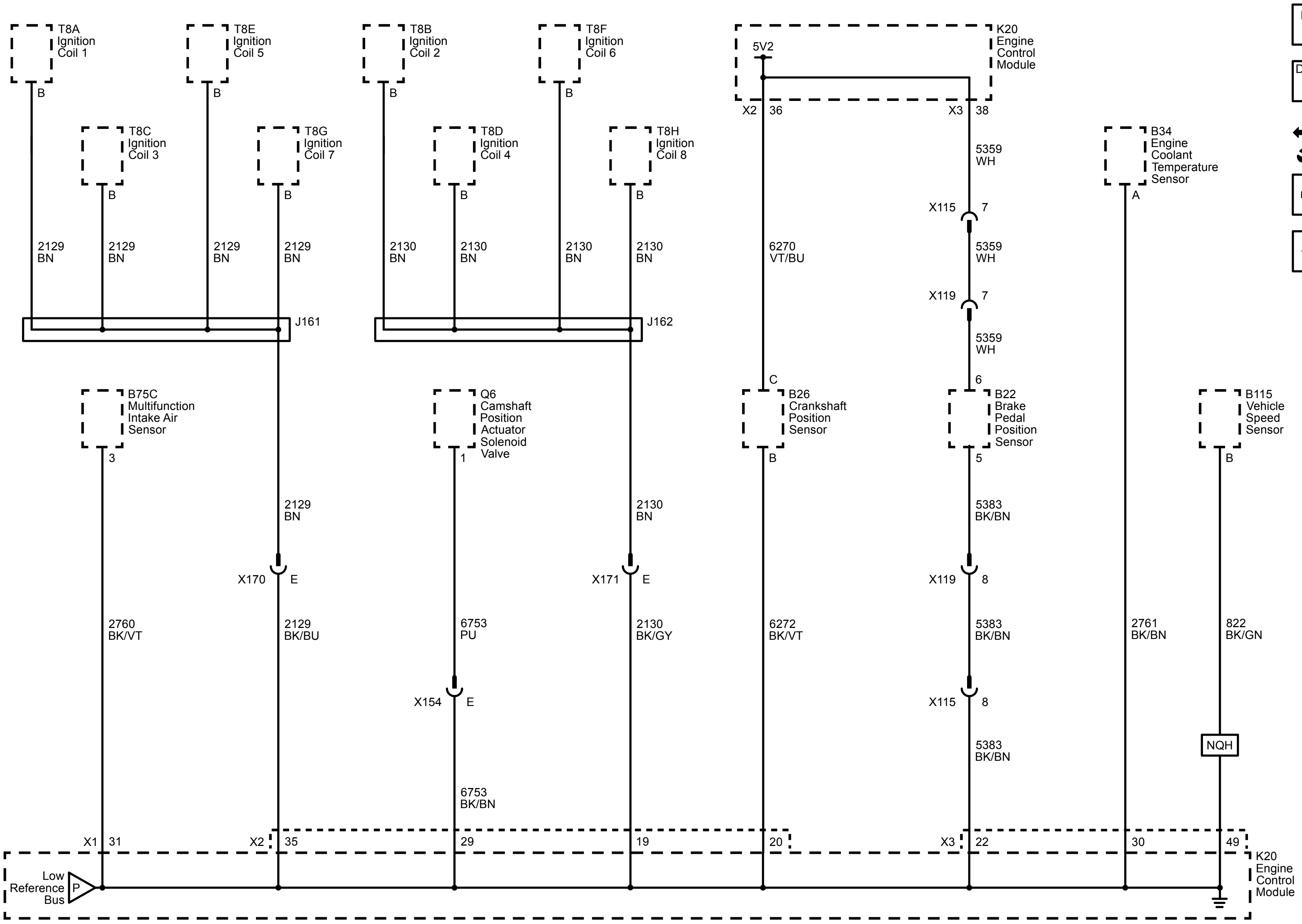


B+
X50A
Fuse Block - Underhood
86
30
KR75
Engine Controls
Ignition Relay
85
87
KR73
Ignition
Main
Relay
F74UA
15A
F102UA
15A
F91UA
15A
F87UA
15A
F88UA
20A
F89UA
20A
F90UA
15A
F100UA
15A
F100UA
15A
X2
M7
H5
H6
J6
439
VT/L-GN
440
RD/BN
5991
YE
5290
VT/D-BU
P16
Instrument
Cluster
A90
Logic
IGN
16
419
BN/WH
X225
25
419
BN/WH
X115
3
Data
Communication
Schematics
5985
VT/YE
2501
WH
2500
D-BU
419
BN/WH
X1
19
20
40
X2
28
X1
18
43
29
52
IGN
B+
IGN
IGN
K20
Engine
Control
Module
X2
73
451
BK/WH
G120

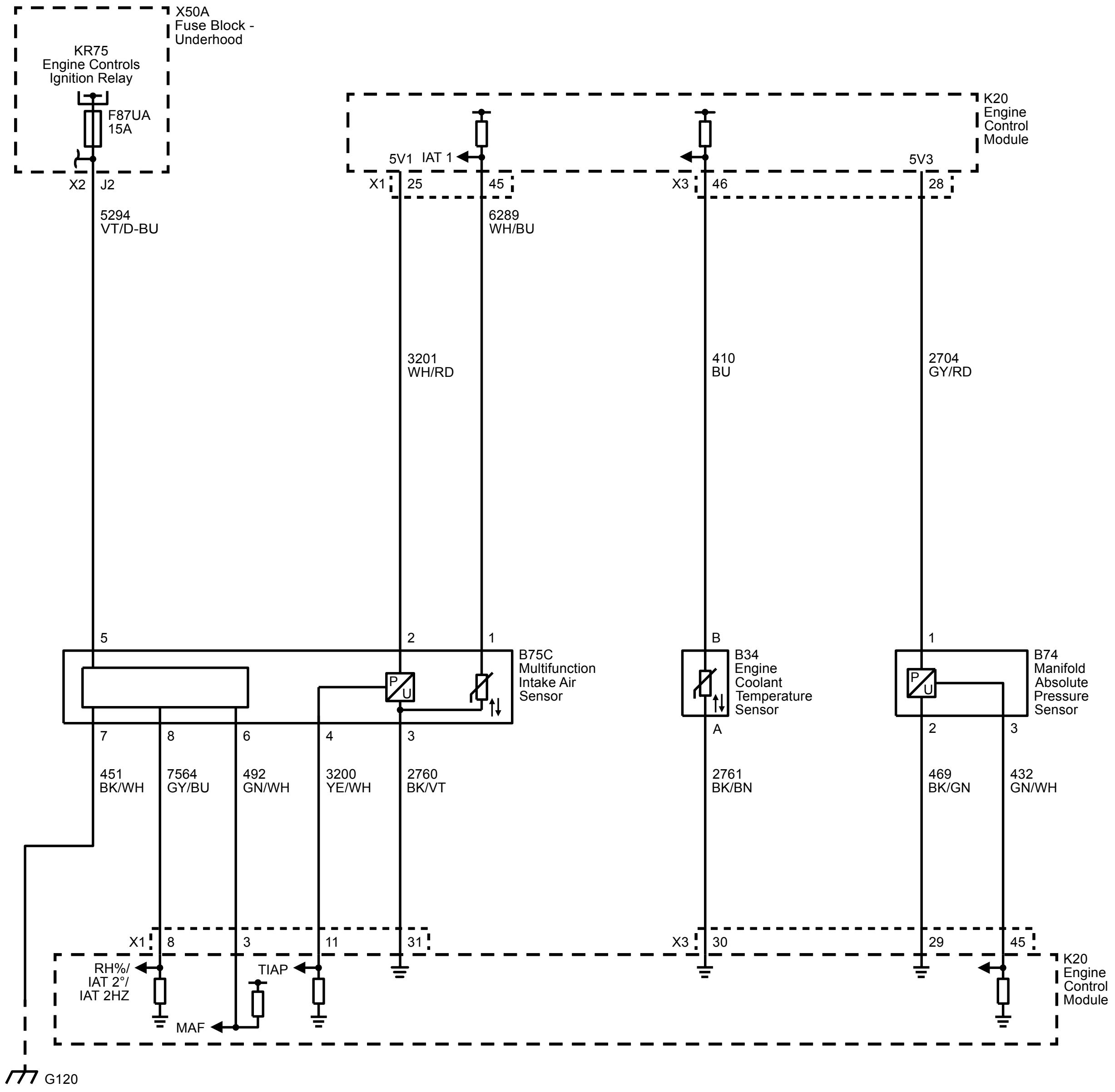
5V1, 5V3, 5V4, and Low Reference Bus (1 of 2)


K20 Engine Control Module
5V1
5V3
5V4
X1 26
25
X2 40
41
X3 43
28
X1 16
24
X2 43
5300 GY/BU
X154 A
2709 YE/RD
X125 16
1274 BN/RD
1164 WH/RD
X115 25
18
A7 Fuel Pump and Level Sensor Assembly
A6D Fuel Pump and Level Sensor Assembly - Secondary
2700 BN/RD
3201 WH/RD
5300 D-BU
2705 WH/RD
B46 Fuel Level Sensor
B46B Fuel Level Sensor - Secondary
2709 YE/RD
2704 GY/RD
1274 BN/RD
1164 WH/RD
2701 BN/YE
X119 6
3
1274 BN/RD
1164 WH/RD
2
2
A
2
B
B
3
1
C
D
5
B1 A/C Refrigerant Pressure Sensor
B75C Multifunction Intake Air Sensor
B23 Camshaft Position Sensor
B37B Engine Oil Pressure Sensor
B150 Fuel Tank Pressure Sensor
B74 Manifold Absolute Pressure Sensor
B107 Accelerator Pedal Position Sensor
Q38 Throttle Body
1
4
B
3
2
2
A
F
4
6281 BK/GN
6281 BK/GN
6281 BK/GN
1272 BK/VT
1271 BK/BU
J375
X119 4
1
5514 BK/BN
3202 YE/WH
5301 BN
2755 BK/VT
6281 BK/GN
469 BK/GN
1272 BK/VT
1271 BK/BU
2752 BK/BN
X154 B
X125 12
X115 27
19
5301 BK/GN
6281 BK/GN
1272 BK/VT
1271 BK/BU
K20 Engine Control Module
X1 13
11
X2 24
25
X3 27
29
X1 30
38
X2 44
P
Low Reference Bus

5V2 and Low Reference Bus (2 of 2)


T8A Ignition Coil 1
T8E Ignition Coil 5
T8B Ignition Coil 2
T8F Ignition Coil 6
T8C Ignition Coil 3
T8G Ignition Coil 7
T8D Ignition Coil 4
T8H Ignition Coil 8
B
2129 BN
2130 BN
J161
J162
K20 Engine Control Module
5V2
X2 36
X3 38
5359 WH
X115 7
X119 7
6270 VT/BU
B34 Engine Coolant Temperature Sensor
A
C
6
B75C Multifunction Intake Air Sensor
3
Q6 Camshaft Position Actuator Solenoid Valve
1
B26 Crankshaft Position Sensor
B22 Brake Pedal Position Sensor
5
B115 Vehicle Speed Sensor
X170 E
X171 E
X119 8
X154 E
X115 8
2760 BK/VT
2129 BK/BU
6753 PU
2130 BK/GY
6272 BK/VT
5383 BK/BN
2761 BK/BN
822 BK/GN
NQH
6753 BK/BN
X1 31
X2 35
29
19
20
X3 22
30
49
Low Reference Bus
P
K20 Engine Control Module

Engine Data Sensors - Pressure and Temperature


X50A
Fuse Block -
Underhood
KR75
Engine Controls
Ignition Relay
F87UA
15A
X2
J2
5294
VT/D-BU
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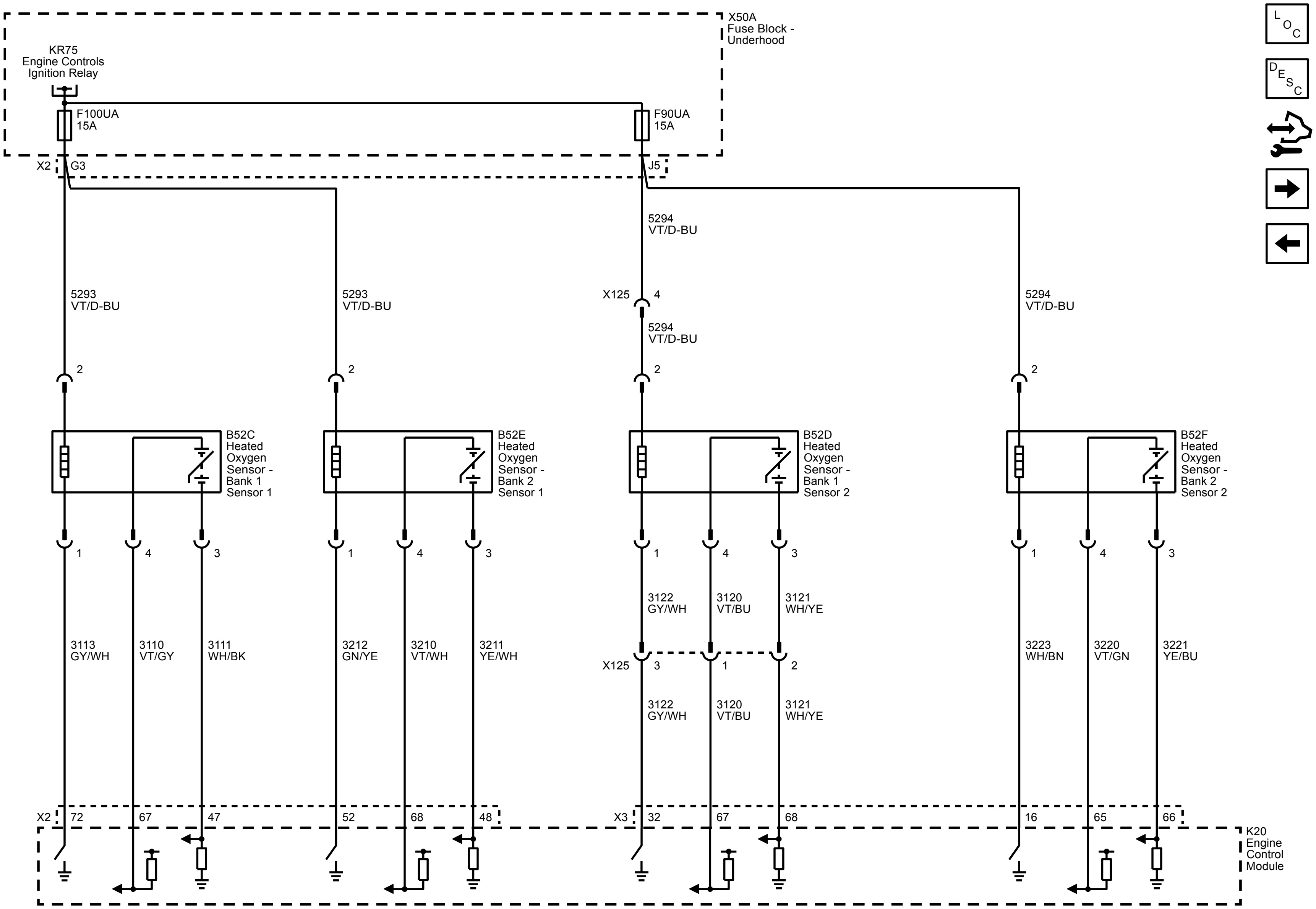
Engine
Control
Module
5V1
IAT 1
5V3
X1
25
45
X3
46
28
6289
WH/BU
3201
WH/RD
410
BU
2704
GY/RD
5
2
1
B75C
Multifunction
Intake Air
Sensor
P
U
B
B34
Engine
Coolant
Temperature
Sensor
A
1
B74
Manifold
Absolute
Pressure
Sensor
7
8
6
4
3
2
3
451
BK/WH
7564
GY/BU
492
GN/WH
3200
YE/WH
2760
BK/VT
2761
BK/BN
469
BK/GN
432
GN/WH
X1
8
3
11
31
X3
30
29
45
RH%/
IAT 2°/
IAT 2HZ
TIAP
MAF
K20
Engine
Control
Module
G120

Engine Data Sensors - Heated Oxygen Sensors



X50A
Fuse Block - Underhood
KR75
Engine Controls Ignition Relay
F100UA
15A
F90UA
15A
X2
G3
J5
5294
VT/D-BU
5293
VT/D-BU
5293
VT/D-BU
X125
4
5294
VT/D-BU
5294
VT/D-BU
2
2
2
2
B52C
Heated Oxygen Sensor - Bank 1 Sensor 1
B52E
Heated Oxygen Sensor - Bank 2 Sensor 1
B52D
Heated Oxygen Sensor - Bank 1 Sensor 2
B52F
Heated Oxygen Sensor - Bank 2 Sensor 2
1
4
3
1
4
3
1
4
3
1
4
3
3122
GY/WH
3120
VT/BU
3121
WH/YE
3113
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3220
VT/GN
3221
YE/BU
X125
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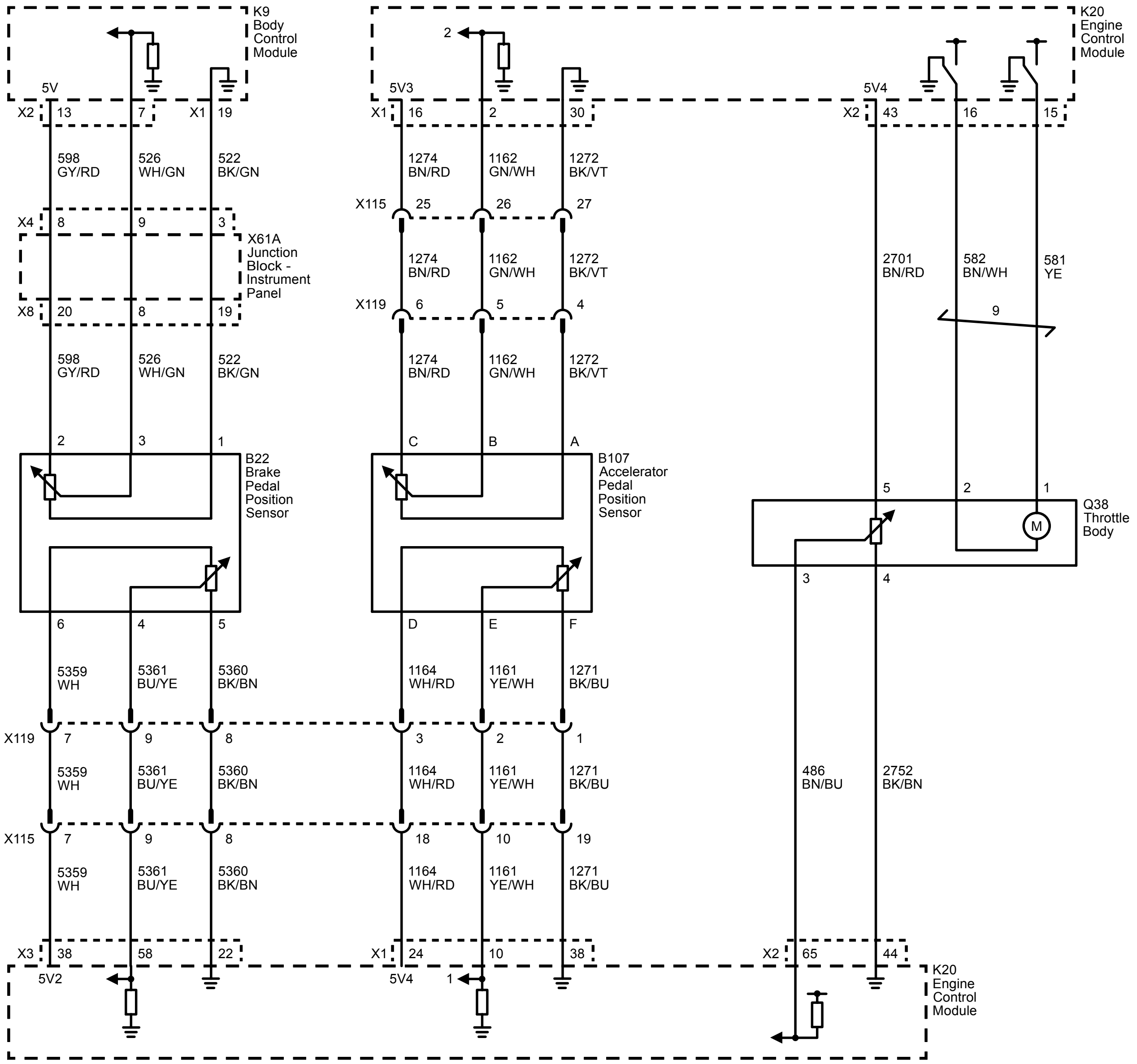
1
2
3122
GY/WH
3120
VT/BU
3121
WH/YE
X2
72
67
47
52
68
48
X3
32
67
68
16
65
66
K20
Engine Control Module

Engine Data Sensors - Throttle Controls and Override


K9
Body
Control
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5V
X2
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X1
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GY/RD
526
WH/GN
522
BK/GN
X4
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9
3
X61A
Junction
Block -
Instrument
Panel
X8
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8
19
598
GY/RD
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WH/GN
522
BK/GN
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B22
Brake
Pedal
Position
Sensor
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5359
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BK/BN
X119
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GN/WH
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BK/VT
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Pedal
Position
Sensor
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WH/RD
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YE/WH
1271
BK/BU
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WH/RD
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YE/WH
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BK/BU
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M
Q38
Throttle
Body
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65
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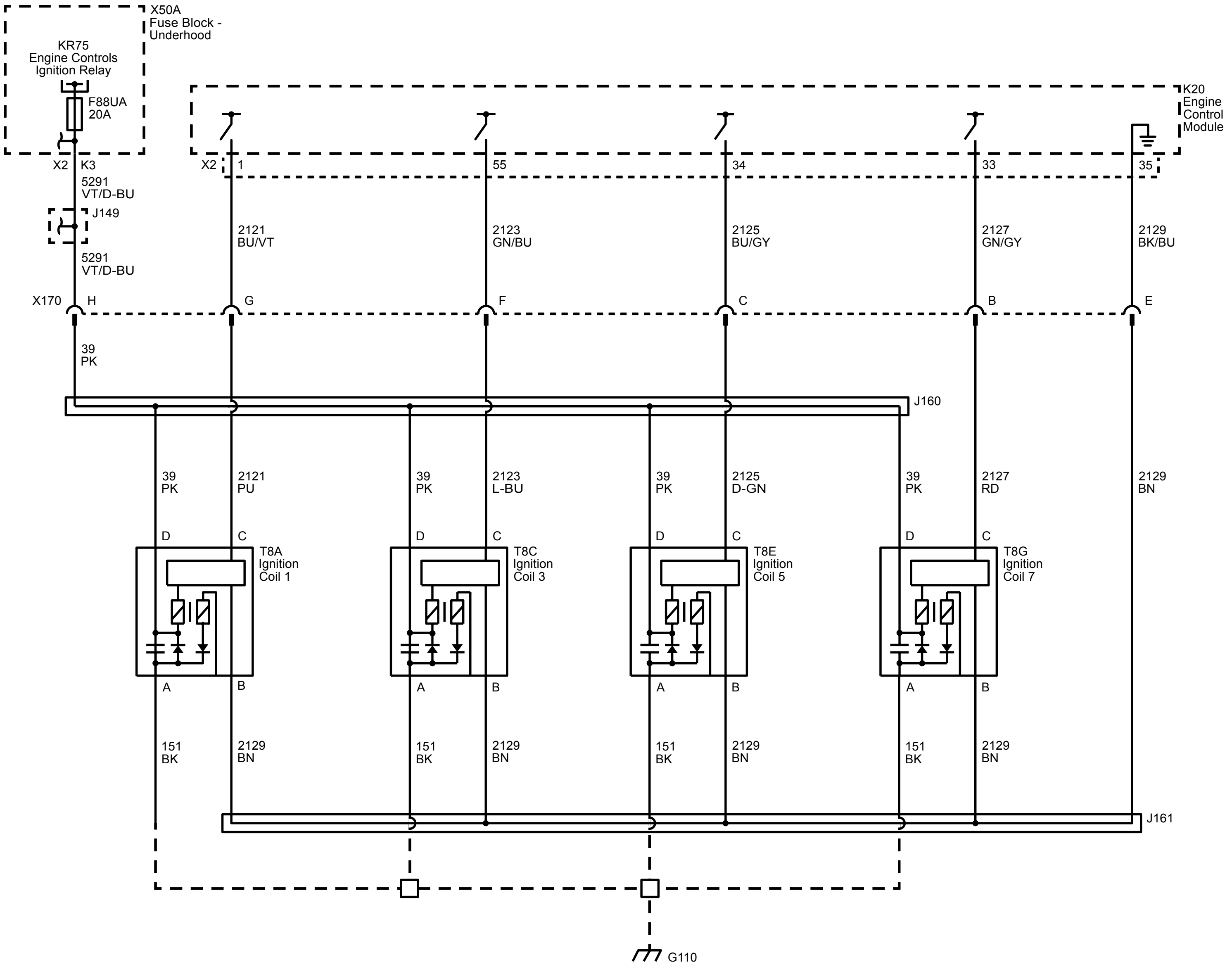
K20
Engine
Control
Module

Ignition Controls - Ignition System Coils 1, 3, 5, and 7


X50A
Fuse Block -
Underhood
KR75
Engine Controls
Ignition Relay
F88UA
20A
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5291
VT/D-BU
J149
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VT/D-BU
X170
H
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PK
K20
Engine
Control
Module
X2
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34
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BU/VT
2123
GN/BU
2125
BU/GY
2127
GN/GY
2129
BK/BU
G
F
C
B
E
J160
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PK
2121
PU
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PK
2123
L-BU
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PK
2125
D-GN
39
PK
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RD
2129
BN
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Ignition
Coil 1
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T8E
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Ignition
Coil 7
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BN
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BK
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BN
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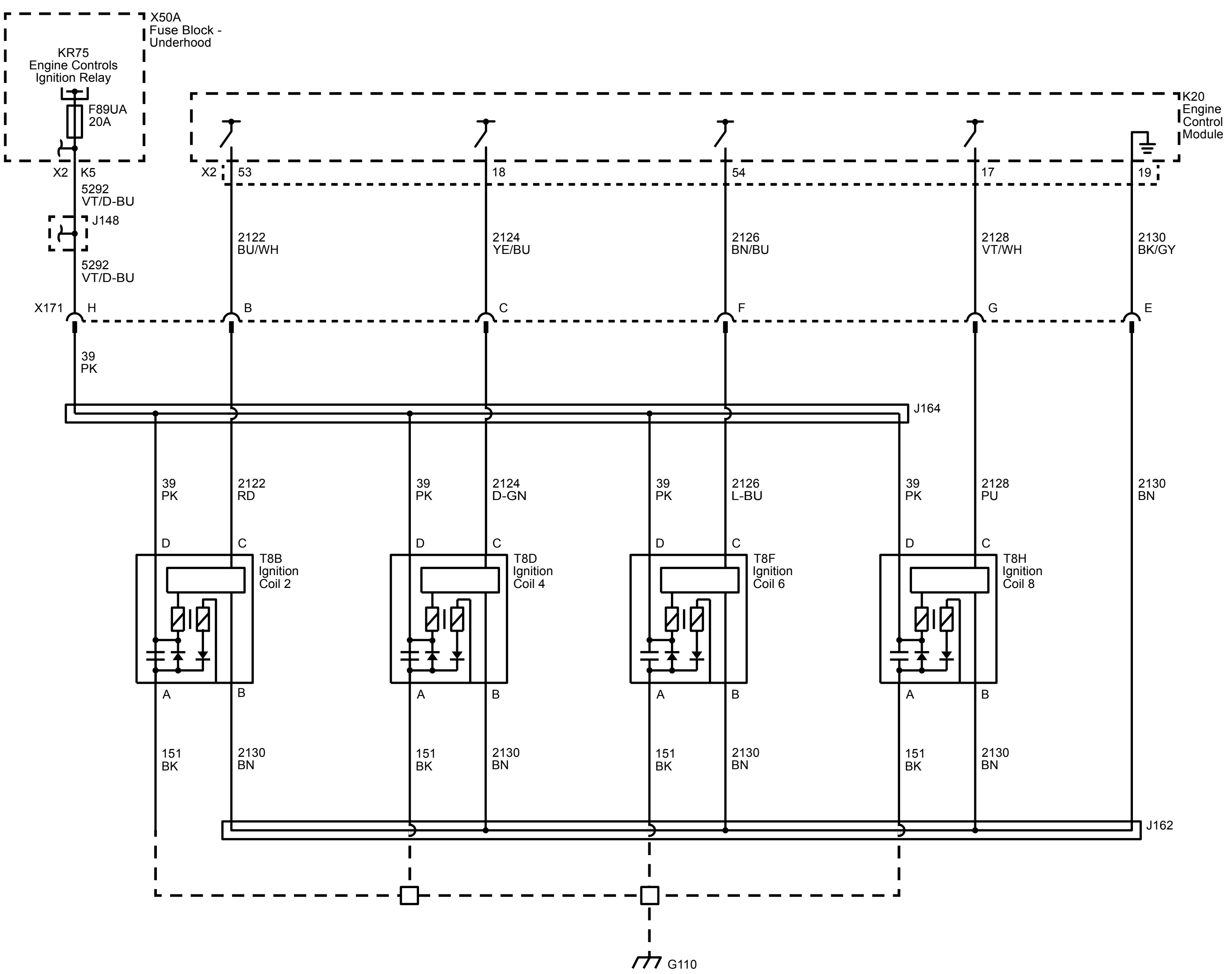
G110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VT/D-BU
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39
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Control
Module
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18
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BU/WH
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YE/BU
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T8B
Ignition
Coil 2
T8D
Ignition
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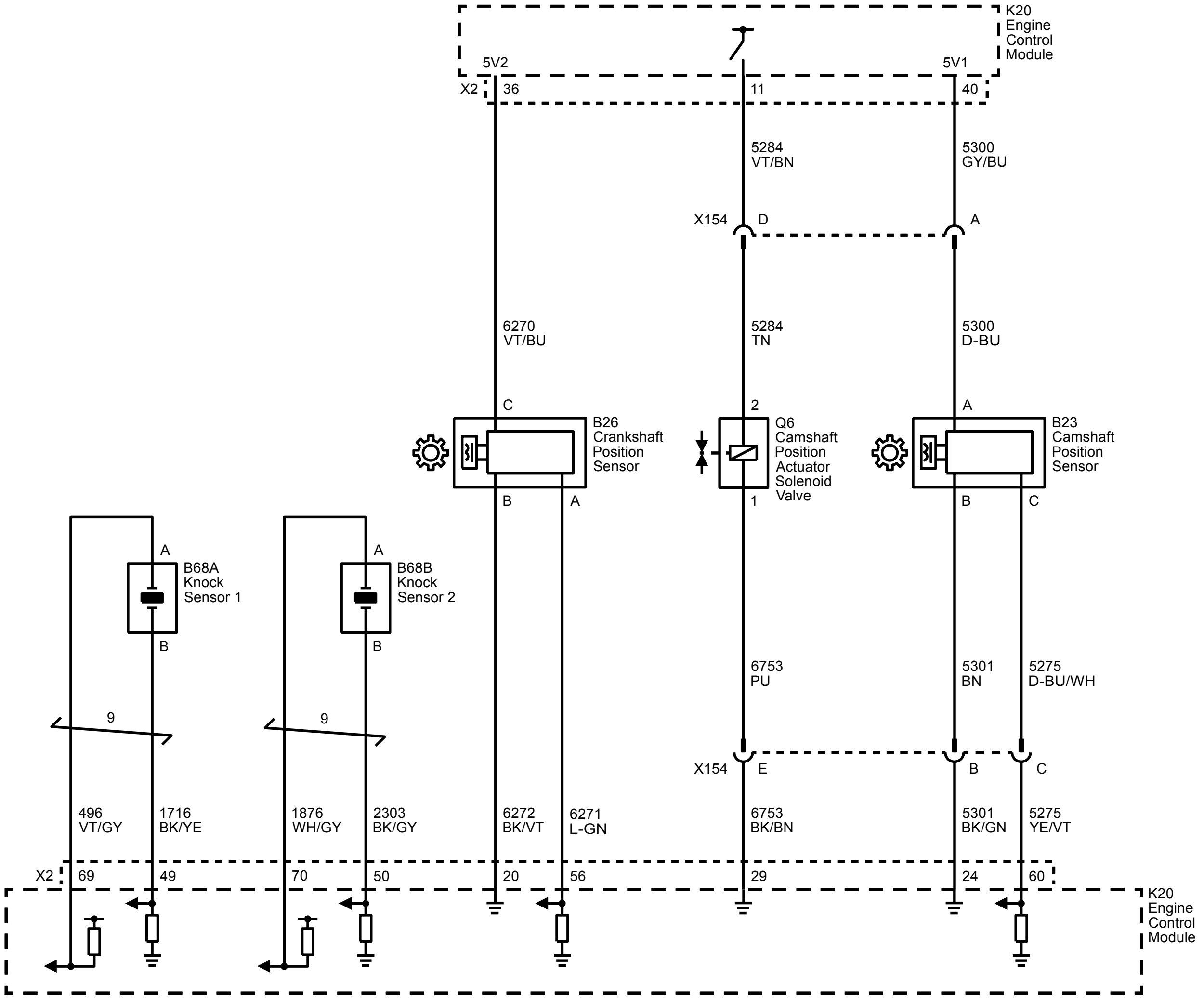
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TN
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D-BU
C
2
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Position
Sensor
Q6
Camshaft
Position
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Solenoid
Valve
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Knock
Sensor 2
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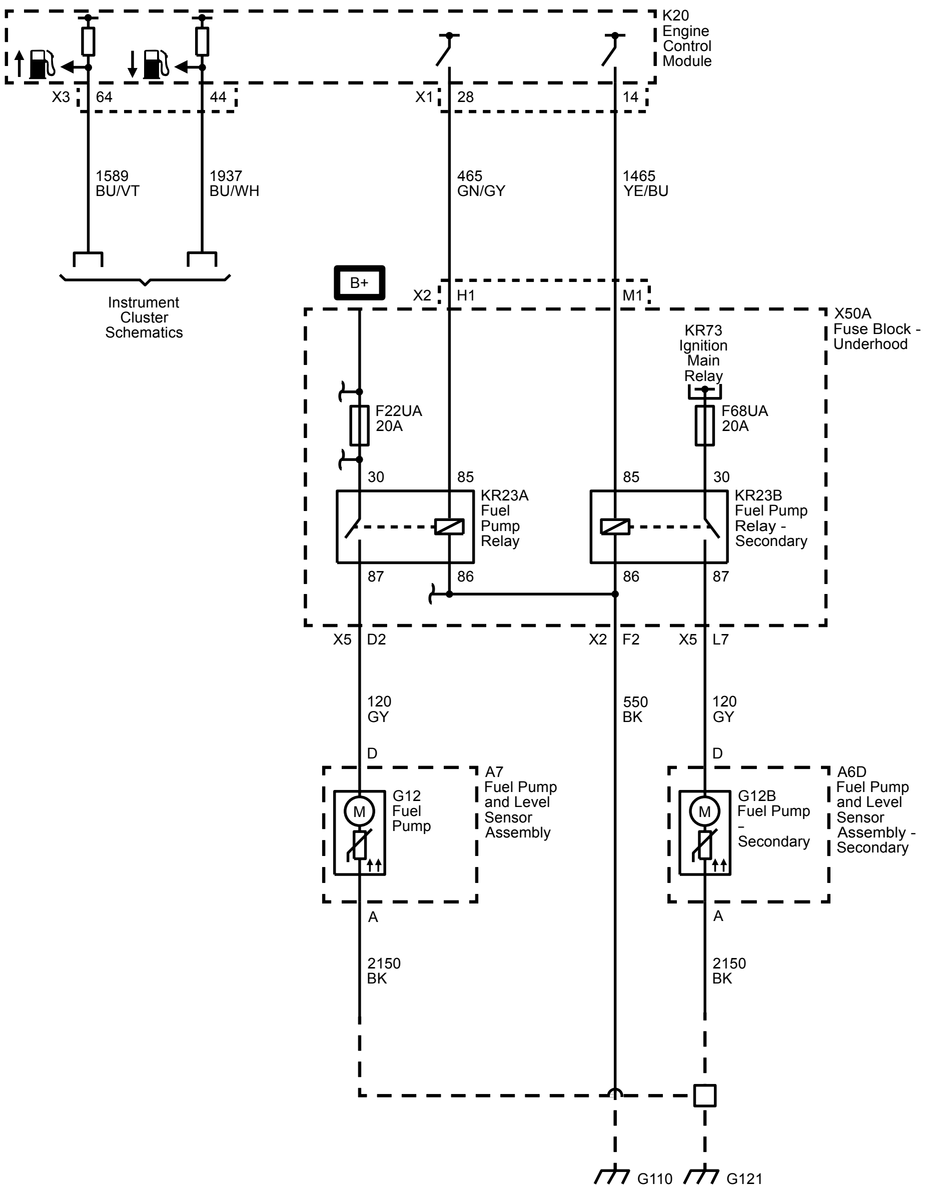
Control
Module

Fuel Controls - Fuel Pump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BU/WH
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YE/BU
Instrument
Cluster
Schematics
B+
X2
H1
M1
X50A
Fuse Block -
Underhood
KR73
Ignition
Main
Relay
F22UA
20A
F68UA
20A
30
85
85
30
KR23A
Fuel
Pump
Relay
KR23B
Fuel Pump
Relay -
Secondary
87
86
86
87
X5
D2
X2
F2
X5
L7
120
GY
550
BK
120
GY
D
D
A7
Fuel Pump
and Level
Sensor
Assembly
G12
Fuel
Pump
M
G12B
Fuel Pump
-
Secondary
M
A6D
Fuel Pump
and Level
Sensor
Assembly -
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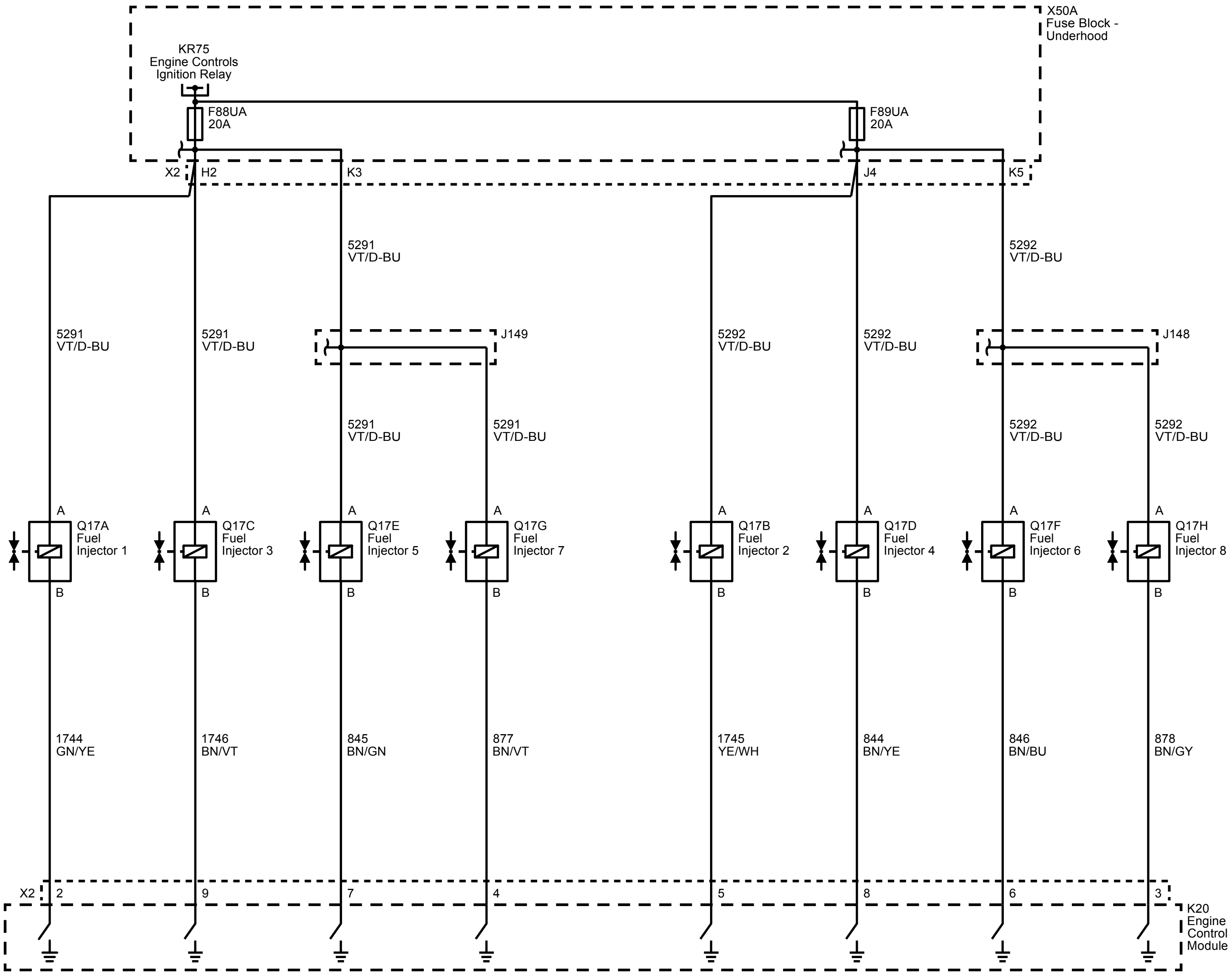
A
2150
BK
2150
BK
G110
G121

Fuel Controls - Fuel Injectors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Underhood
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B
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Fuel
Injector 1
Q17C
Fuel
Injector 3
Q17E
Fuel
Injector 5
Q17G
Fuel
Injector 7
Q17B
Fuel
Injector 2
Q17D
Fuel
Injector 4
Q17F
Fuel
Injector 6
Q17H
Fuel
Injector 8
1744
GN/YE
1746
BN/VT
845
BN/GN
877
BN/VT
1745
YE/WH
844
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Engine
Control
Module

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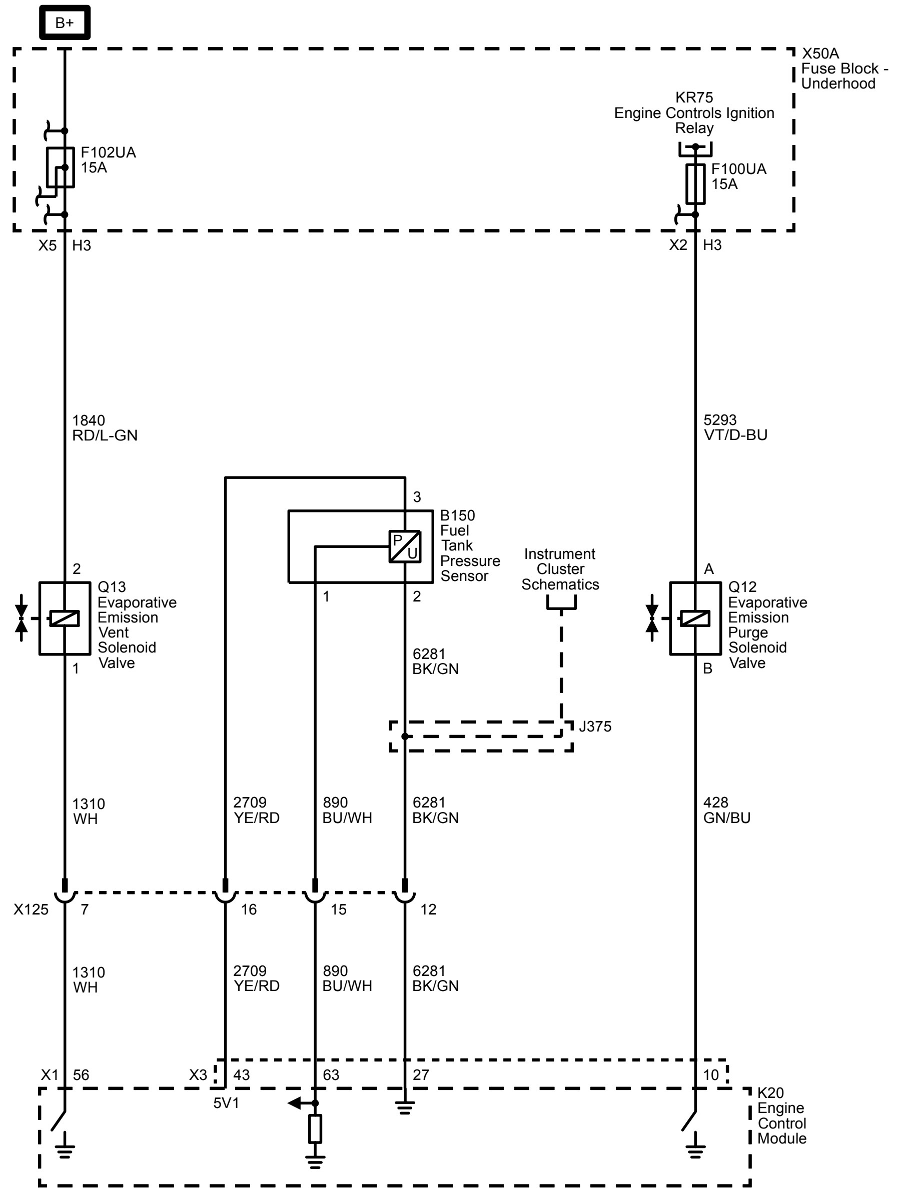
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Engine Controls Ignition Relay
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H3
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5293
VT/D-BU
3
B150
Fuel
Tank
Pressure
Sensor
P
U
1
2
Instrument
Cluster
Schematics
2
Q13
Evaporative
Emission
Vent
Solenoid
Valve
1
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Q12
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Emission
Purge
Solenoid
Valve
B
6281
BK/GN
J375
1310
WH
2709
YE/RD
890
BU/WH
6281
BK/GN
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GN/BU
X125
7
16
15
12
1310
WH
2709
YE/RD
890
BU/WH
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BK/GN
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43
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27
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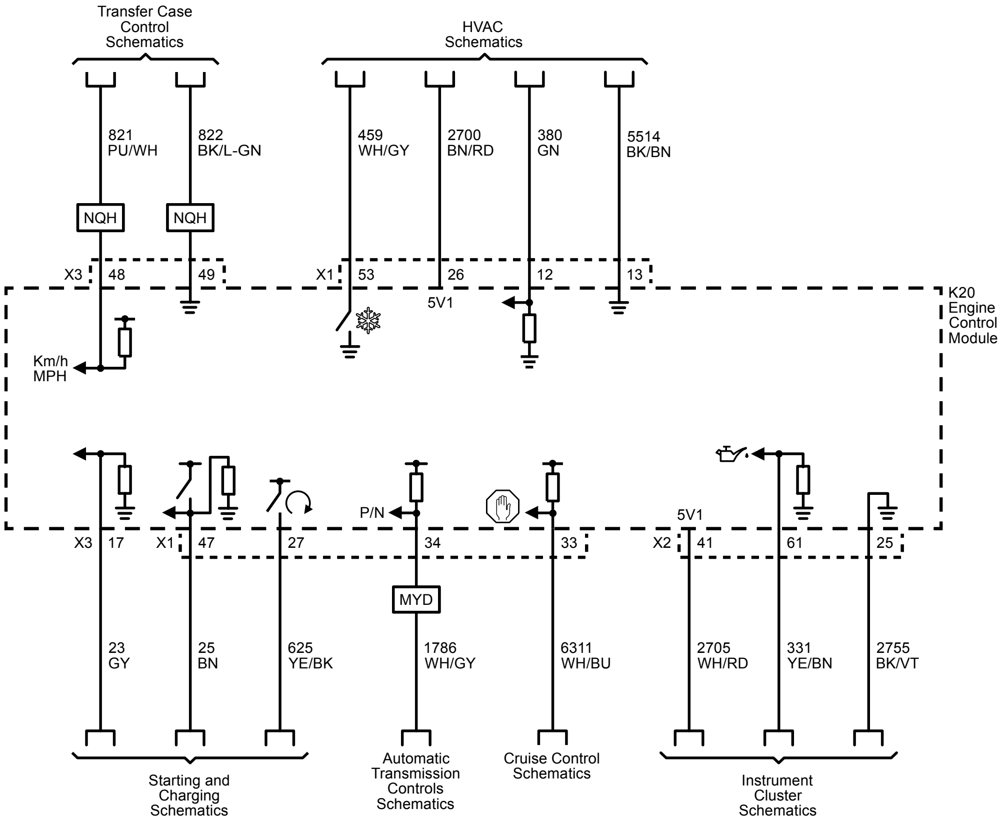
5V1
K20
Engine
Control
Module

Controlled/Monitored Subsystem References


Transfer Case Control Schematics
HVAC Schematics
821 PU/WH
822 BK/L-GN
459 WH/GY
2700 BN/RD
380 GN
5514 BK/BN
NQH
NQH
X3
48
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X1
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5V1
K20 Engine Control Module
Km/h MPH
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5V1
X3
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X2
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25
MYD
23 GY
25 BN
625 YE/BK
1786 WH/GY
6311 WH/BU
2705 WH/RD
331 YE/BN
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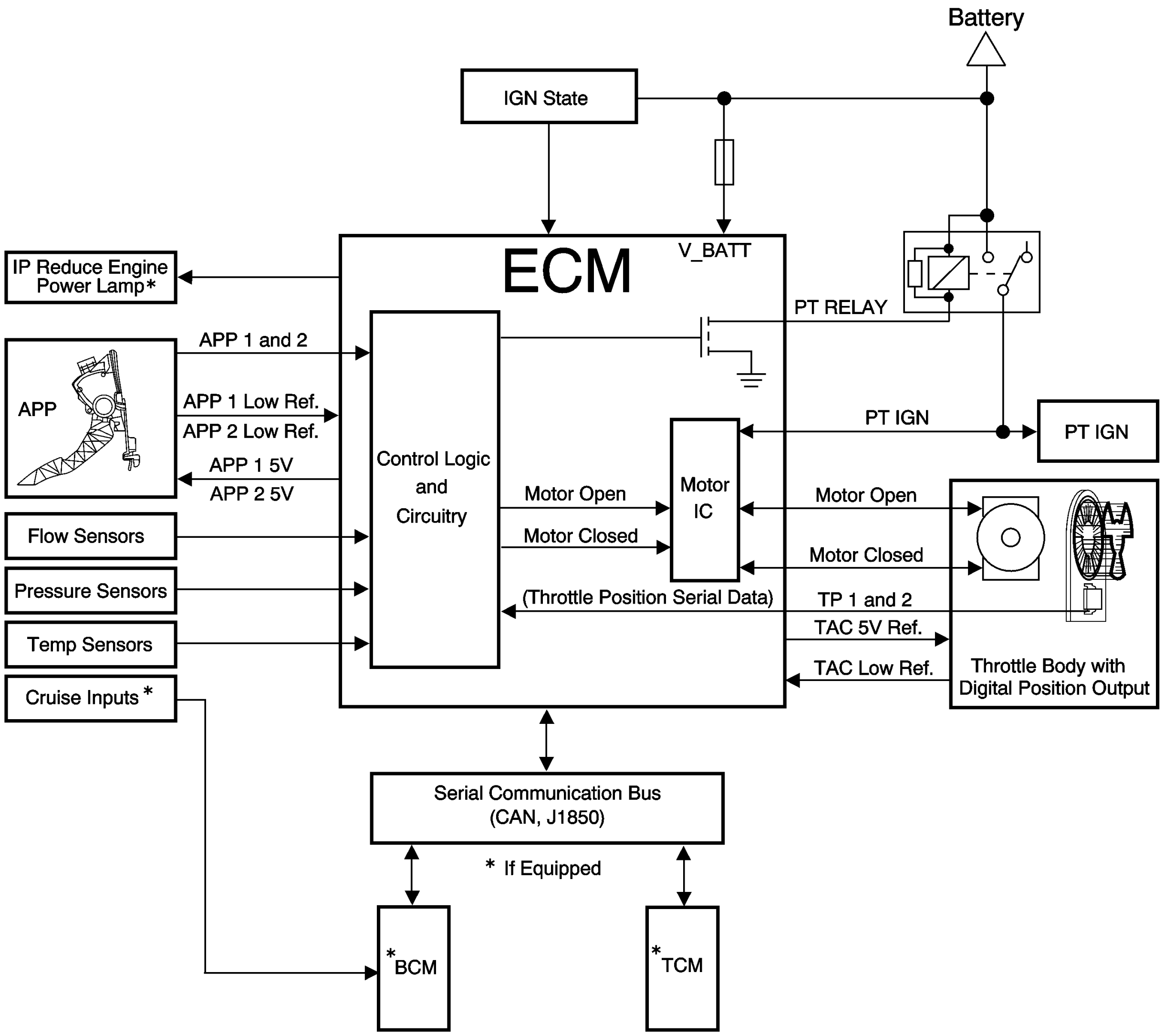
Starting and Charging Schematics
Automatic Transmission Controls Schematics
Cruise Control Schematics
Instrument Cluster Schematics

Throttle Actuator Control (TAC) System Description


Battery
IGN State
ECM
V_BATT
IP Reduce Engine Power Lamp*
APP 1 and 2
APP
APP 1 Low Ref.
APP 2 Low Ref.
APP 1 5V
APP 2 5V
Control Logic and Circuitry
PT RELAY
PT IGN
PT IGN
Motor IC
Motor Open
Motor Closed
Motor Open
Motor Closed
Flow Sensors
Pressure Sensors
Temp Sensors
Cruise Inputs*
(Throttle Position Serial Data)
TP 1 and 2
TAC 5V Ref.
TAC Low Ref.
Throttle Body with Digital Position Output
Serial Communication Bus (CAN, J1850)
* If Equipped
*BCM
*TCM

The engine control module (ECM) is the control center for the throttle actuator control (TAC) system. The ECM determines the driver's intent based on input from the accelerator pedal position sensors, then calculates the appropriate throttle response based on the throttle position sensors. The ECM achieves throttle positioning by providing a pulse width modulated voltage to the throttle actuator motor. The throttle blade is spring loaded in both directions, and the default position is slightly open.

Modes Of Operation

Normal Mode

During the operation of the TAC system, several modes, or functions, are considered normal. The following modes may be entered during normal operations:

- Minimum pedal value—At key-up, the ECM updates the learned minimum pedal value.
- Minimum throttle position values—At key-up, the ECM updates the learned minimum throttle position value. In order to learn the minimum throttle position value, the throttle blade is moved to the Closed position.
- Ice break mode—If the throttle blade is not able to reach a predetermined minimum throttle position, the ice break mode is entered. During the ice break mode, the ECM commands the maximum pulse width several times to the throttle actuator motor in the closing direction.
- Battery saver mode—After a predetermined time without engine speed, the ECM commands the battery saver mode. During the battery saver mode, the TAC module removes the voltage from the motor control circuits, which removes the current draw used to maintain the idle position and allows the throttle to return to the spring loaded default position.

Reduced Engine Power Mode

When the ECM detects a condition with the TAC system, the ECM may enter a reduced engine power mode. Reduced engine power may cause one or more of the following conditions:

- Acceleration limiting—The ECM will continue to use the accelerator pedal for throttle control, however, the vehicle acceleration is limited.
- Limited throttle mode—The ECM will continue to use the accelerator pedal for throttle control, however, the maximum throttle opening is limited.
- Throttle default mode—The ECM will turn OFF the throttle actuator motor, and the throttle will return to the spring loaded default position.
- Forced idle mode—The ECM will perform the following actions:
  - Limit engine speed to the idle position

  - Ignore the accelerator pedal input.
- Engine shutdown mode—The ECM will disable fuel and de-energize the throttle actuator.

Fuel System Description

Fuel System Overview

The Fuel System is an electronic returnless on-demand design. A returnless fuel system reduces the internal temperature of the fuel tank by not returning hot fuel from the engine to the fuel tank. Reducing the internal temperature of the fuel tank results in lower evaporative emissions.

An electric turbine style fuel pump attaches to the fuel sender assembly inside the fuel tank. The fuel pump supplies high pressure fuel through the fuel filter and the fuel feed pipe to the fuel injection system. The fuel pump provides fuel at a higher rate of flow than is needed by the fuel injection system. The fuel pump also supplies fuel to a venturi pump located on the bottom of the fuel sender assembly. The function of the venturi pump is to fill the fuel sender assembly reservoir. The fuel pump and sender assembly contains a reverse flow check valve. The check valve maintains fuel pressure in the fuel feed pipe and the fuel rail in order to prevent long cranking times.

E85 Flex Fuel Description

E85 compatible vehicles no longer use an alcohol sensor to determine and adjust for the alcohol content of the fuel in the tank. Instead, the vehicle calculates the alcohol content of the fuel through measured adjustments.

The ethanol calculation occurs with the engine running after a refueling event has been detected via a measured change in the fuel level sender output. The virtual flex fuel sensor (V-FFS) algorithm temporarily closes the canister purge valve for a few seconds and monitors information from the closed loop fuel trim system to calculate the ethanol content. This logic executes several times until the ethanol calculation is deemed to be stable. This may take several minutes under low fuel flow conditions such as idle, or a shorter time during higher fuel flow, off-idle conditions.

Air-fuel ratios and the corresponding ethanol percentage are updated following each purge-off sequence. The fuel alcohol content percentage value can be read on a scan tool.

When an E85 compatible vehicle is built, an ECM or PCM replaced, or if the learned alcohol content has been reset with a scan tool the fuel system will need to contain ASTM gasoline with 10 percent or less ethanol content.

A minimum of 11 liters (3 gallons) must be put in the tank in order for the vehicle to recognize a re-fueling event. It is not necessary to turn the ignition OFF in order to have the re-fueling event recognized, however local safety regulations should be followed.

After the re-fueling event, the system registers the amount of fuel that was added, relative to the amount that was in the tank. Reading fuel trim and O2 sensor activity, the system determines if the fuel added was either ASTM Gasoline or ASTM E85. Based on that determination, the system adjusts to the expected alcohol mix in the fuel tank, and then the fuel trim and O2 sensor activity fine tunes the adjustments. The system must remain in closed loop in order for this adjustment to occur. Numerous short trips after switching from gasoline to E85, or E85 to gasoline, can result in driveability symptoms due to the inability of the system to adjust for fuel composition by not attaining closed loop operation.

Switching Between Gasoline and E85

No special precautions need to be taken when switching back and forth between gasoline and E85 other than re-fueling events must be 11 liters (3 gallons) or greater, and the vehicle must remain in closed loop long enough, usually by the time the engine has maintained full operating temperature, to calculate the composition of the new blend in the tank.

Fuel Pump Flow Control Module (FPCM)

The fuel pump flow control module (FPCM) is a serviceable GMLAN module. The FPCM receives the desired fuel pressure message from the engine control module (ECM) and controls the fuel pump located within the fuel tank to achieve the desired fuel pressure. The FPCM sends a 25 KHZ PWM signal to the fuel pump, and pump speed is changed by varying the duty cycle of this signal. Maximum current supplied to the fuel pump is 15 amps. A liquid fuel pressure sensor provides fuel pressure feedback to the FPCM.

Electronic Returnless Fuel System (ERFS)

The electronic returnless fuel system is a microprocessor controlled fuel delivery system which transports fuel from the tank to the fuel rails. It functions as an electronic replacement for a traditional, mechanical fuel pressure regulator. A pressure relief regulator valve within the fuel tank provides an added measure of over pressure protection. Desired fuel pressure is commanded by the engine control module (ECM), and transmitted to the FPCM via a GMLAN serial data message. A liquid fuel pressure sensor provides the feedback the FPCM requires for Closed Loop fuel pressure control.

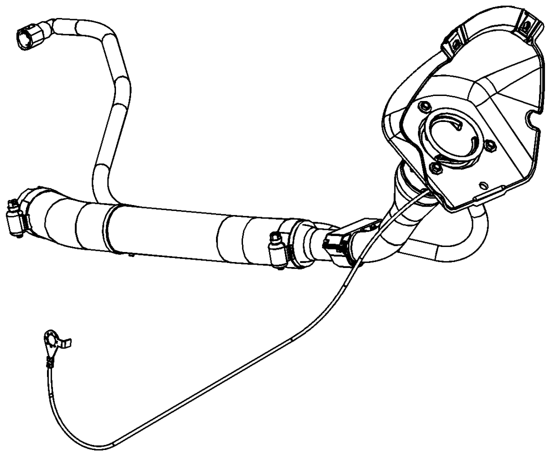
Liquid Fuel Pressure Sensor – With FPCM

The fuel pressure sensor is a serviceable 5-volt, 3-pin device. It is located on the fuel feed line forward of the fuel tank, and receives power and ground from the fuel pump flow control module (FPCM) through a vehicle wiring harness. The sensor provides a fuel pressure signal to the FPCM, which is used to provide Closed Loop fuel pressure control.

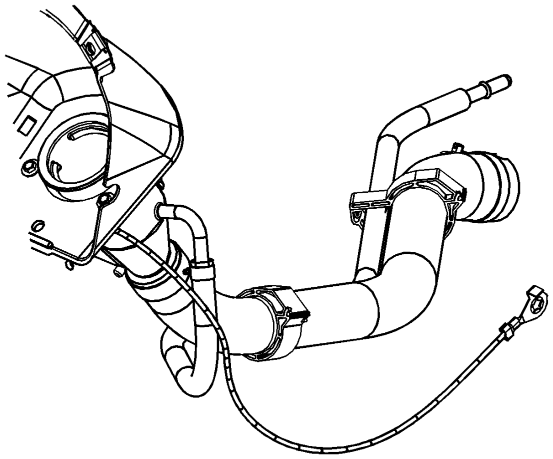
Fuel Tanks

The fuel tanks store the fuel supply. The front fuel tank is located on the left side of the vehicle. On dual-tank applications, the secondary fuel tank is located in the rear of the vehicle above the spare tire. The fuel tanks are each held in place by 2 metal straps that attach to the frame. The fuel tanks are molded from high density polyethylene.

Fuel Fill Pipe

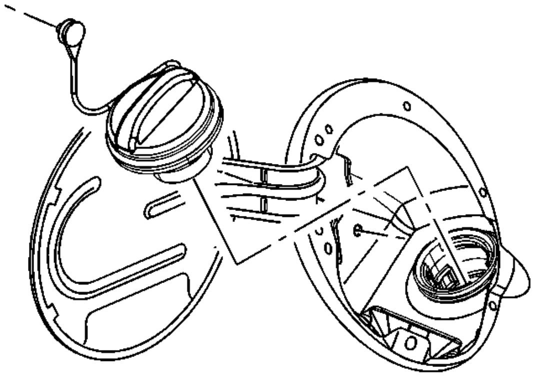


The fuel fill pipe has a built-in restrictor in order to prevent refueling with leaded fuel. When refueling dual tank applications, fuel is dispensed to both the front and rear fuel tanks at the same time. Once the fill vent is obstructed, fuel backs up the fill pipe and trips the dispensing nozzle.



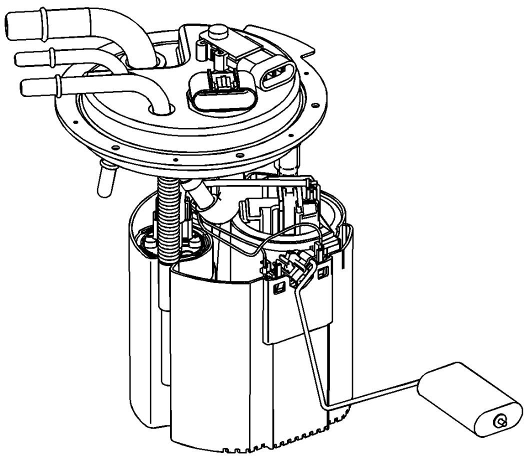
The front fuel tank vent runs into the rear tank to the top of the filler pipe assembly, which in turn vents to atmosphere. The fuel tank vent valves are connected and route to the canister to collect hydrocarbon emissions during operation of the vehicle.

Fuel Filler Cap



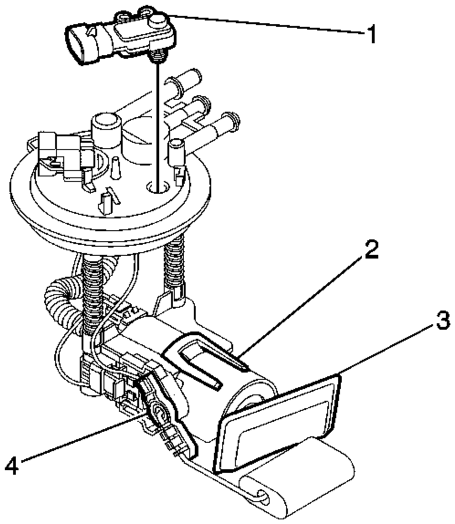
The fuel fill pipe has a tethered fuel filler cap. A torque-limiting device prevents the cap from being over tightened. To install the cap, turn the cap clockwise until you hear clicks. This indicates that the cap is correctly torqued and fully seated. A built-in device indicates that the fuel filler cap is fully seated. A fuel filler cap that is not fully seated may cause a malfunction in the emission system.

Fuel Tank Fuel Pump Module Assembly



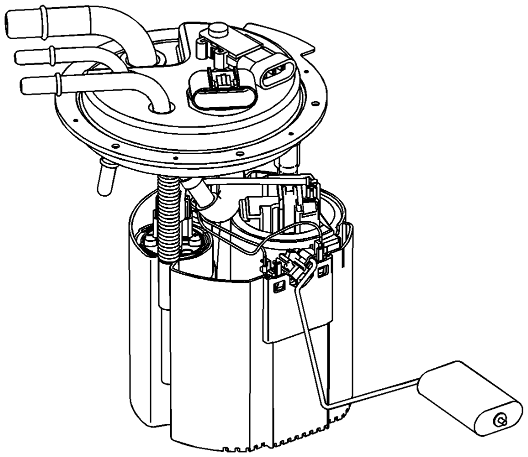
The front fuel tank fuel pump module on dual tank applications consists of the following major components:

- The fuel level sensor
- The fuel strainer
- The fuel filter
- The pressure relief regulator valve



The rear fuel tank fuel pump module on dual tank applications consists of the following major components:

- The fuel level sensor (4)
- The FTP sensor (1)
- The rear fuel pump (2)



The fuel tank fuel pump module assembly on single tank applications consists of the following major components:

- The fuel level sensor
- The fuel tank pressure (FTP) sensor
- The fuel strainer
- The fuel filter
- The pressure relief regulator valve

Fuel Level Sensor

The fuel level sensor consists of a float, a wire float arm, and a ceramic resistor cord. The position of the float arm indicates the fuel level. The fuel level sensor contains a variable resistor, which changes resistance in correspondence to the amount of fuel in the fuel tank. The engine control module (ECM) sends the fuel level information via the class 2 circuit to the instrument panel (I/P) cluster. This information is used for the I/P fuel gauge and the low fuel warning indicator, if applicable. The ECM also monitors the fuel level input for various diagnostics.

Fuel Pump

The fuel pump is mounted in the fuel tank fuel pump module assembly reservoir. The fuel pump is an electric high pressure pump. Fuel is pumped to the fuel injection system at a pressure that is based on feedback from the fuel pressure sensor. The fuel pump delivers a constant flow of fuel to the engine during low fuel conditions and aggressive vehicle maneuvers. The fuel pump flex pipe acts to dampen the fuel pulses and noise generated by the fuel pump.

Pressure Relief Regulator Valve

The pressure relief regulator valve replaces the typical fuel pressure regulator used on a mechanical returnless fuel system. The pressure relief regulator valve is closed during normal vehicle operation. The pressure relief regulator vale is used to vent pressure during hot soaks and also functions as a fuel pressure regulator in the event of the fuel pump flow control module defaulting to 100 % pulse width modulation (PWM) of the fuel pump. Due to variation in fuel system pressures, the opening pressure for the pressure relief regulator vale is set higher than the pressure that is used on a mechanical returnless fuel system pressure regulator.

Fuel Strainer

The fuel strainer attaches to the lower end of the fuel tank fuel pump module. The fuel strainer is made of woven plastic. The functions of the fuel strainer are to filter contaminants and to wick fuel. Fuel stoppage at this point indicates that the fuel tank contains an abnormal amount of sediment.

Fuel Filter

The fuel filter is contained in the fuel tank fuel pump module assembly inside the fuel tank. The paper filter element of the fuel filter traps particles in the fuel that may damage the fuel injection system. The fuel filter housing is made to withstand maximum fuel system pressure, exposure to fuel additives, and changes in temperature. There is no service interval for fuel filter replacement.

Nylon Fuel Pipes

Warning: Refer to **CELL Link Error - Link target cell (cell ID 178042) is invalid for this publication..**

Nylon pipes are constructed to withstand maximum fuel system pressure, exposure to fuel additives, and changes in temperature. Heat resistant rubber hose or corrugated plastic conduit protects the sections of the pipes that are exposed to chafing, to high temperatures, or to vibration.

Nylon fuel pipes are somewhat flexible and can be formed around gradual turns under the vehicle. However, if nylon fuel pipes are forced into sharp bends, the pipes kink and restrict the fuel flow. Also, once exposed to fuel, nylon pipes may become stiffer and are more likely to kink if bent too far. Take special care when working on a vehicle with nylon fuel pipes.

Quick-Connect Fittings

Quick-connect fittings provide a simplified means of installing and connecting fuel system components. The fittings consist of a unique female connector and a compatible male pipe end. O-rings, located inside the female connector, provide the fuel seal. Integral locking tabs inside the female connector hold the fittings together.

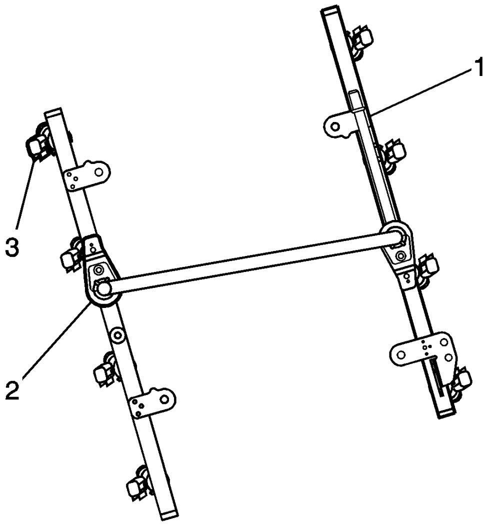
On-Board Refueling Vapor Recovery System (ORVR)

The On-Board Refueling Vapor Recovery System (ORVR) is an on-board vehicle system designed to recover fuel vapors during the vehicle refueling operation. The flow of liquid fuel down the fuel filler pipe provides a liquid seal which prevents vapor from leaving the fuel filler pipe. An evaporative emission (EVAP) pipe transports the fuel vapor to the EVAP canister for use by the engine.

Fuel Pipe O-Rings

O-rings seal the threaded connections in the fuel system. Fuel system O-ring seals are made of special material. Service the O-ring seals with the correct service part.

Fuel Rail Assembly



The fuel rail assembly attaches to the engine intake manifold. The fuel rail assembly performs the following functions:

- Positions the injectors (3) in the intake manifold
- Distributes fuel evenly to the injectors

Fuel Injectors

The fuel injector assembly is a solenoid device controlled by the engine control module (ECM) that meters pressurized fuel to a single engine cylinder. The ECM energizes the injector solenoid to open a normally closed ball valve. This allows the fuel to flow into the top of the injector, past the ball valve, and through a director plate at the injector outlet. The director plate has machined holes that control the fuel flow, generating a spray of finely atomized fuel at the injector tip. Fuel from the injector tip is directed at the intake valve, causing the fuel to become further atomized and vaporized before entering the combustion chamber. This fine atomization improves fuel economy and emissions.

Fuel Metering Modes of Operation

The engine control module (ECM) monitors voltages from several sensors in order to determine how much fuel to give the engine. The ECM controls the amount of fuel delivered to the engine by changing the fuel injector pulse width. The fuel is delivered under one of several modes.

Starting Mode

When the ignition is first turned ON, the ECM supplies voltage to the FPCM for 2 seconds. While this voltage is being received, the FPCM closes the ground switch of the fuel pump, and also supplies a varying voltage to the fuel tank fuel pump module in order to maintain the desired fuel rail pressure. The ECM calculates the air/fuel ratio based on inputs from the engine coolant temperature (ECT), mass air flow (MAF), manifold absolute pressure (MAP), and throttle position (TP) sensors. The system stays in starting mode until the engine speed reaches a predetermined RPM.

Clear Flood Mode

If the engine floods, clear the engine by pressing the accelerator pedal down to the floor and then crank the engine. When the TP sensor is at wide open throttle (WOT), the ECM reduces the fuel injector pulse width in order to increase the air to fuel ratio. The ECM holds this injector rate as long as the throttle stays wide open and the engine speed is below a predetermined RPM. If the throttle is not held wide open, the ECM returns to the starting mode.

Run Mode

The run mode has 2 conditions called Open Loop and Closed Loop. When the engine is first started and the engine speed is above a predetermined RPM, the system begins Open Loop operation. The ECM ignores the signal from the heated oxygen sensors (HO2S). The ECM calculates the air/fuel ratio based on inputs from the ECT, MAF, MAP, and TP sensors. The system stays in Open Loop until meeting the following conditions:

- Both front HO2S have varying voltage output, showing that both HO2S are hot enough to operate properly.
- The ECT sensor is above a specified temperature.
- A specific amount of time has elapsed after starting the engine.

Specific values for the above conditions exist for each different engine, and are stored in the electrically erasable programmable read-only memory (EEPROM). The system begins Closed Loop operation after reaching these values. In Closed Loop, the ECM calculates the air/fuel ratio, injector ON time, based upon the signal from various sensors, but mainly from the HO2S. This allows the air/fuel ratio to stay very close to 14.7:1.

Acceleration Mode

When the driver pushes on the accelerator pedal, air flow into the cylinders increases rapidly. To prevent possible hesitation, the ECM increases the pulse width to the injectors to provide extra fuel during acceleration. This is also known as power enrichment. The ECM determines the amount of fuel required based upon the TP, the ECT, the MAP, the MAF, and the engine speed.

Deceleration Mode

When the driver releases the accelerator pedal, air flow into the engine is reduced. The ECM monitors the corresponding changes in the TP, the MAP, and the MAF. The ECM shuts OFF fuel completely if the deceleration is very rapid, or for long periods, such as long, closed-throttle coast-down. The fuel shuts OFF in order to prevent damage to the catalytic converters.

Battery Voltage Correction Mode

When the battery voltage is low, the ECM compensates for the weak spark delivered by the ignition system in the following ways:

- Increasing the amount of fuel delivered
- Increasing the idle RPM
- Increasing the ignition dwell time

Fuel Cutoff Mode

The ECM cuts OFF fuel from the fuel injectors when the following conditions are met in order to protect the powertrain from damage and improve driveability:

- The ignition is OFF. This prevents engine run-on.
- The ignition is ON but there is no ignition reference signal. This prevents flooding or backfiring.
- The engine speed is too high, above red line.
- The vehicle speed is too high, above rated tire speed.
- During an extended, high speed, closed throttle coast down—This reduces emissions and increases engine braking.
- During extended deceleration, in order to prevent damage to the catalytic converters

Fuel Trim

The engine control module (ECM) controls the air/fuel metering system in order to provide the best possible combination of driveability, fuel economy, and emission control. The ECM monitors the heated oxygen sensor (HO2S) signal voltage while in Closed Loop and regulates the fuel delivery by adjusting the pulse width of the fuel injectors based on this signal. The ideal fuel trim values are around 0 percent for both short term and long term fuel trim. A positive fuel trim value indicates the ECM is adding fuel in order to compensate for a lean condition by increasing the pulse width. A negative fuel trim value indicates that the ECM is reducing the amount of fuel in order to compensate for a rich condition by decreasing the pulse width. A change made to the fuel delivery changes the short term and long term fuel trim values. The short term fuel trim values change rapidly in response to the HO2S signal voltage. These changes fine tune the engine fueling. The long term fuel trim makes coarse adjustments to the fueling in order to re-center and restore control to short term fuel trim. A scan tool can be used to monitor the short term and long term fuel trim values. The long term fuel trim diagnostic is based on an average of several of the long term speed load learn cells. The ECM selects the cells based on the engine speed and engine load. If the ECM detects an excessive lean or rich condition, the ECM will set a fuel trim diagnostic trouble code (DTC).

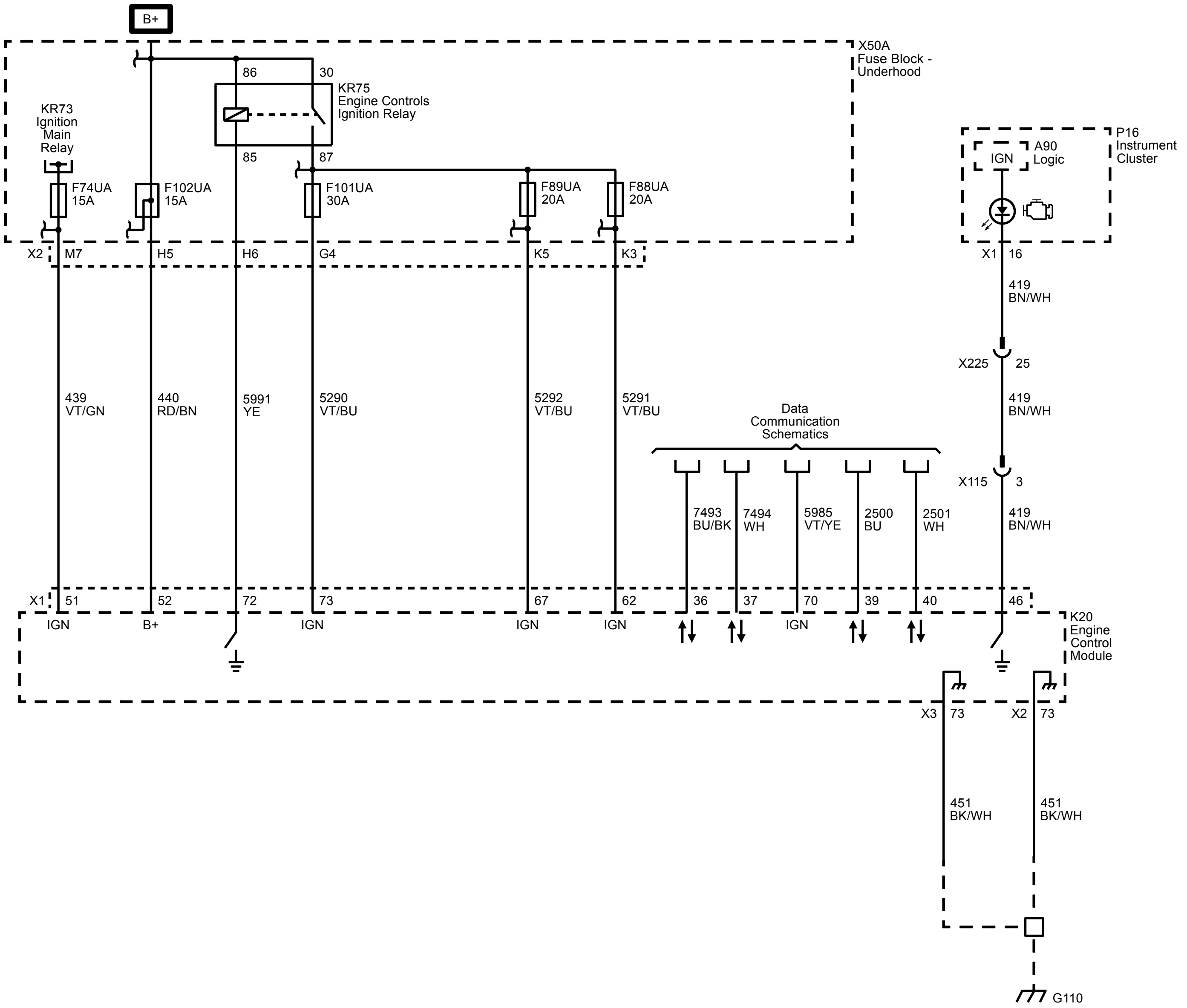
Engine/Propulsion

Engine Controls and Fuel - 5.3L (L83) or 6.2L (L86)

Schematic and Routing Diagrams

Engine Controls Schematics

Module Power, Ground, Serial Data and MIL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86
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KR75
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85
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KR73
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Main
Relay
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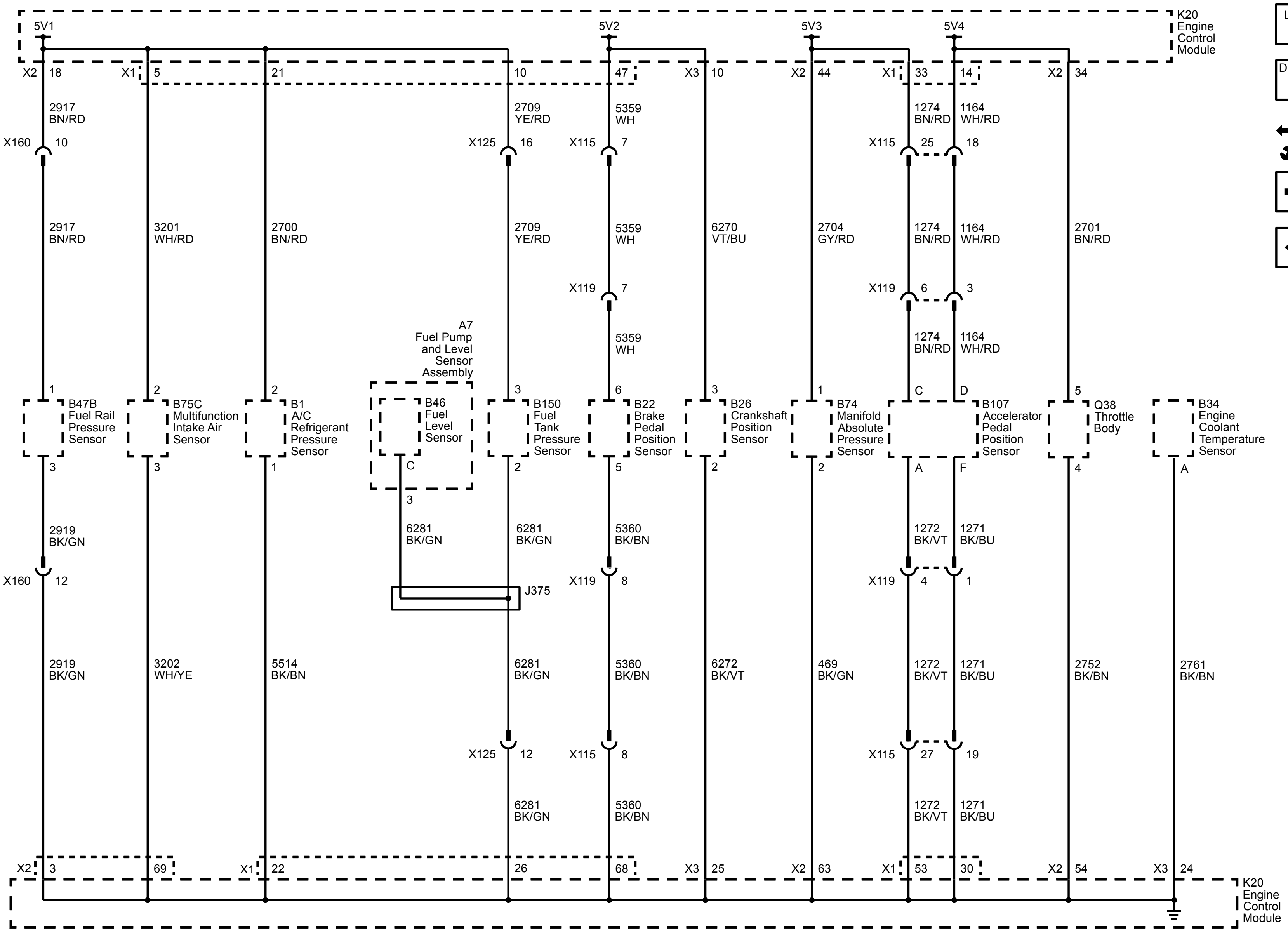
15A
F102UA
15A
F101UA
30A
F89UA
20A
F88UA
20A
X2
M7
H5
H6
G4
K5
K3
439
VT/GN
440
RD/BN
5991
YE
5290
VT/BU
5292
VT/BU
5291
VT/BU
P16
Instrument
Cluster
A90
Logic
IGN
X1
16
419
BN/WH
X225
25
419
BN/WH
X115
3
419
BN/WH
Data
Communication
Schematics
7493
BU/BK
7494
WH
5985
VT/YE
2500
BU
2501
WH
X1
51
52
72
73
67
62
36
37
70
39
40
46
IGN
B+
IGN
IGN
IGN
IGN
K20
Engine
Control
Module
X3
73
X2
73
451
BK/WH
451
BK/WH
G110

5V and Low Reference Busses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5V2
5V3
5V4
X2 18
X1 5
21
10
47
X3 10
X2 44
X1 33
14
X2 34
2917 BN/RD
2709 YE/RD
5359 WH
1274 BN/RD
1164 WH/RD
X160 10
X125 16
X115 7
X115 25
18
2917 BN/RD
3201 WH/RD
2700 BN/RD
2709 YE/RD
5359 WH
6270 VT/BU
2704 GY/RD
1274 BN/RD
1164 WH/RD
2701 BN/RD
X119 7
X119 6
3
5359 WH
1274 BN/RD
1164 WH/RD
A7 Fuel Pump and Level Sensor Assembly
1
B47B Fuel Rail Pressure Sensor
2
B75C Multifunction Intake Air Sensor
2
B1 A/C Refrigerant Pressure Sensor
B46 Fuel Level Sensor
3
B150 Fuel Tank Pressure Sensor
6
B22 Brake Pedal Position Sensor
3
B26 Crankshaft Position Sensor
1
B74 Manifold Absolute Pressure Sensor
C
D
B107 Accelerator Pedal Position Sensor
5
Q38 Throttle Body
B34 Engine Coolant Temperature Sensor
3
3
1
C
3
2
5
2
2
A
F
4
A
2919 BK/GN
6281 BK/GN
6281 BK/GN
5360 BK/BN
1272 BK/VT
1271 BK/BU
X160 12
J375
X119 8
X119 4
1
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3202 WH/YE
5514 BK/BN
6281 BK/GN
5360 BK/BN
6272 BK/VT
469 BK/GN
1272 BK/VT
1271 BK/BU
2752 BK/BN
2761 BK/BN
X125 12
X115 8
X115 27
19
6281 BK/GN
5360 BK/BN
1272 BK/VT
1271 BK/BU
X2 3
69
X1 22
26
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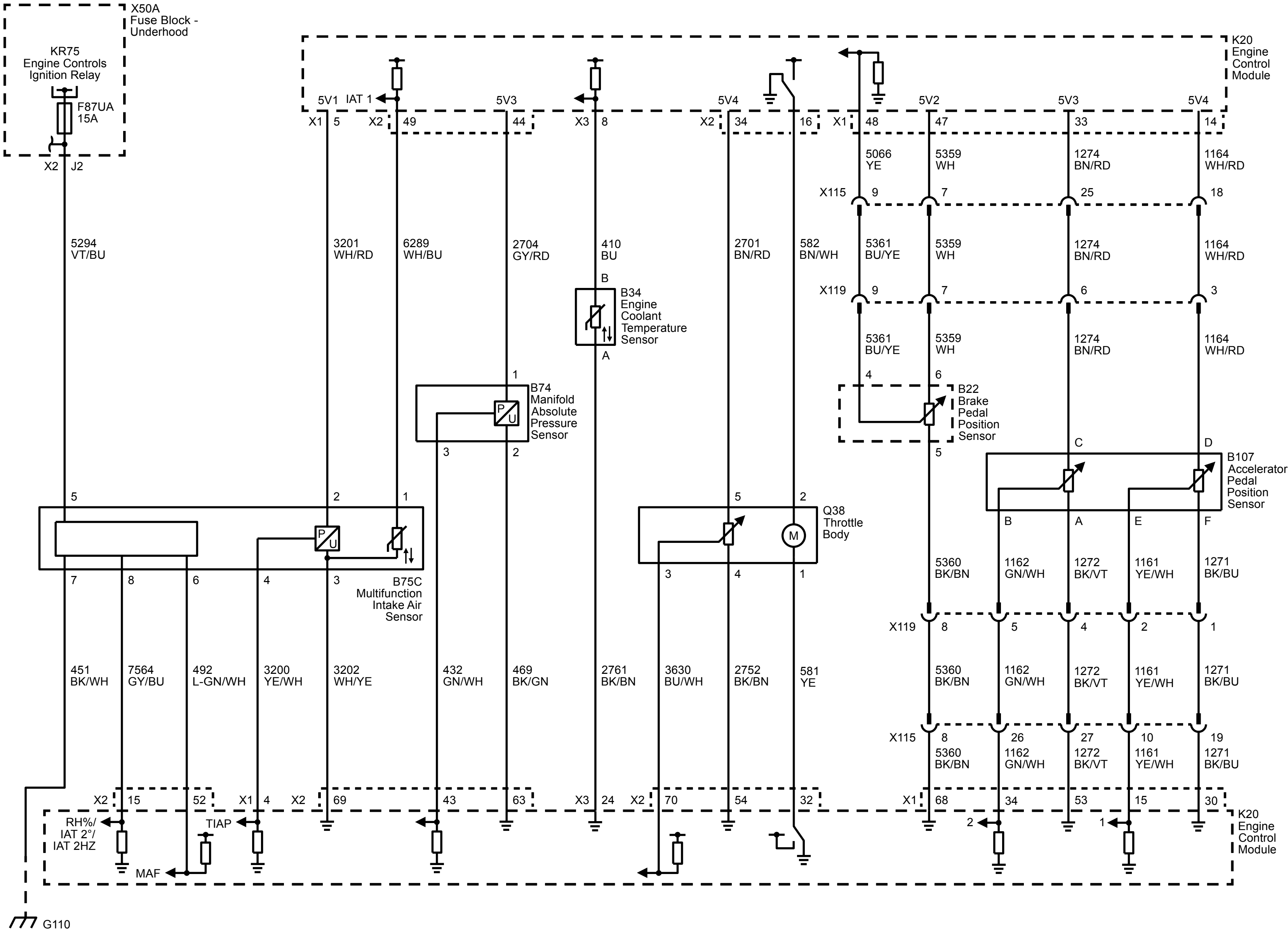
X3 25
X2 63
X1 53
30
X2 54
X3 24
K20 Engine Control Module

Engine Data Sensors - Pressure, Temperature and Throttle Controls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Underhood
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X2 J2
5294
VT/BU
K20
Engine
Control
Module
5V1
IAT 1
5V3
5V4
5V2
5V3
5V4
X1 5
X2 49
44
X3 8
X2 34
16
X1 48
47
33
14
5066
YE
5359
WH
1274
BN/RD
1164
WH/RD
X115 9
7
25
18
3201
WH/RD
6289
WH/BU
2704
GY/RD
410
BU
2701
BN/RD
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BN/WH
5361
BU/YE
5359
WH
1274
BN/RD
1164
WH/RD
X119 9
7
6
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B
B34
Engine
Coolant
Temperature
Sensor
A
5361
BU/YE
5359
WH
1274
BN/RD
1164
WH/RD
1
B74
Manifold
Absolute
Pressure
Sensor
P
U
3
2
4
6
B22
Brake
Pedal
Position
Sensor
5
C
D
B107
Accelerator
Pedal
Position
Sensor
5
2
1
5
2
Q38
Throttle
Body
M
B
A
E
F
7
8
6
4
3
B75C
Multifunction
Intake Air
Sensor
3
4
1
5360
BK/BN
1162
GN/WH
1272
BK/VT
1161
YE/WH
1271
BK/BU
X119 8
5
4
2
1
451
BK/WH
7564
GY/BU
492
L-GN/WH
3200
YE/WH
3202
WH/YE
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GN/WH
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BK/GN
2761
BK/BN
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BU/WH
2752
BK/BN
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BK/BN
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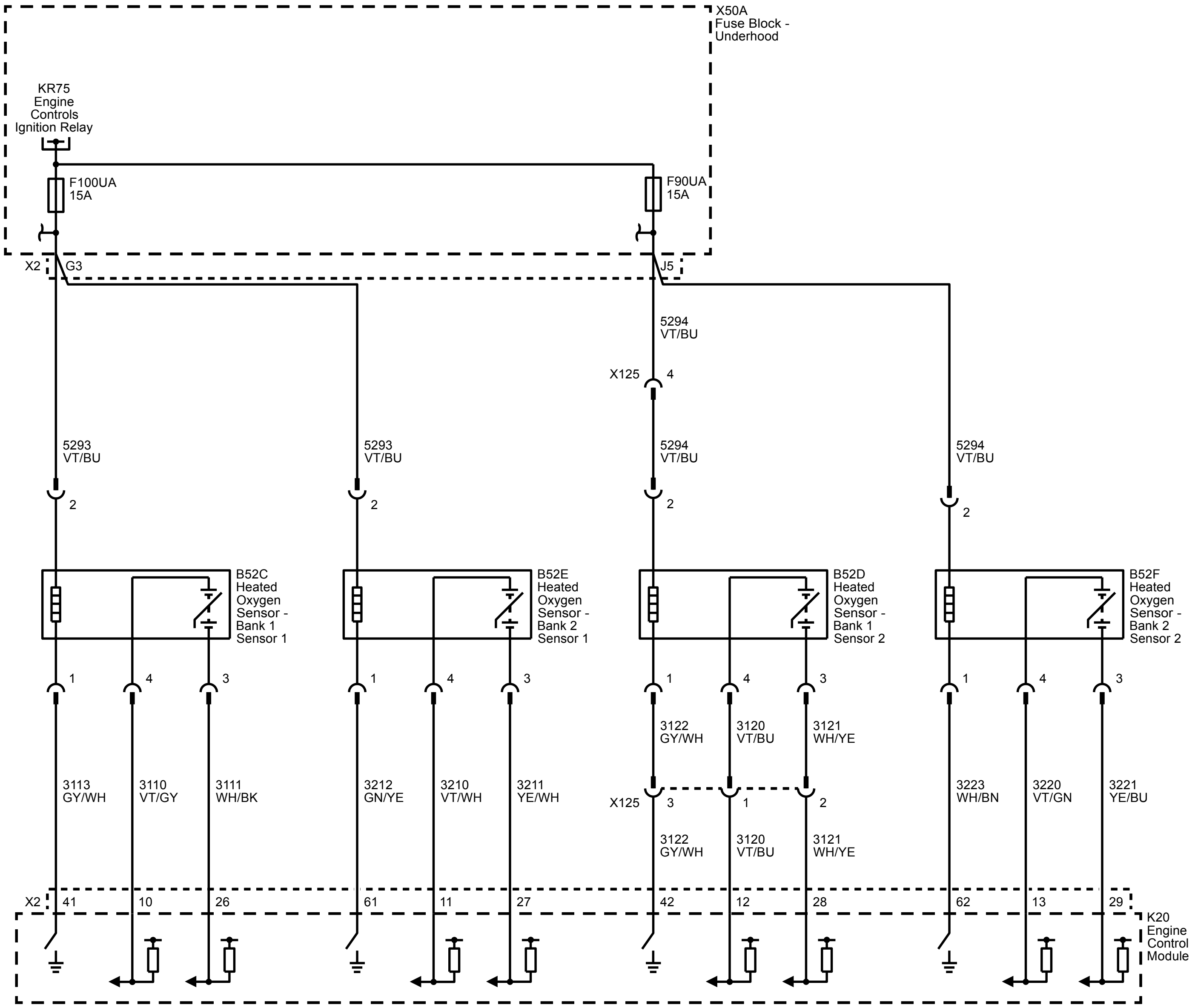
GN/WH
1272
BK/VT
1161
YE/WH
1271
BK/BU
X115 8
26
27
10
19
5360
BK/BN
1162
GN/WH
1272
BK/VT
1161
YE/WH
1271
BK/BU
X2 15
52
X1 4
X2 69
43
63
X3 24
X2 70
54
32
X1 68
34
53
15
30
K20
Engine
Control
Module
RH%/
IAT 2°/
IAT 2HZ
TIAP
MAF
2
1
G110

Engine Data Sensors - Oxygen Sensors

LOC
DESC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Fuse Block -
Underhood
KR75
Engine
Controls
Ignition Relay
F100UA
15A
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X2
G3
J5
5294
VT/BU
X125
4
5293
VT/BU
5293
VT/BU
5294
VT/BU
5294
VT/BU
2
2
2
2
B52C
Heated
Oxygen
Sensor -
Bank 1
Sensor 1
B52E
Heated
Oxygen
Sensor -
Bank 2
Sensor 1
B52D
Heated
Oxygen
Sensor -
Bank 1
Sensor 2
B52F
Heated
Oxygen
Sensor -
Bank 2
Sensor 2
1
4
3
1
4
3
1
4
3
1
4
3
3122
GY/WH
3120
VT/BU
3121
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VT/BU
3121
WH/YE
X2
41
10
26
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11
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42
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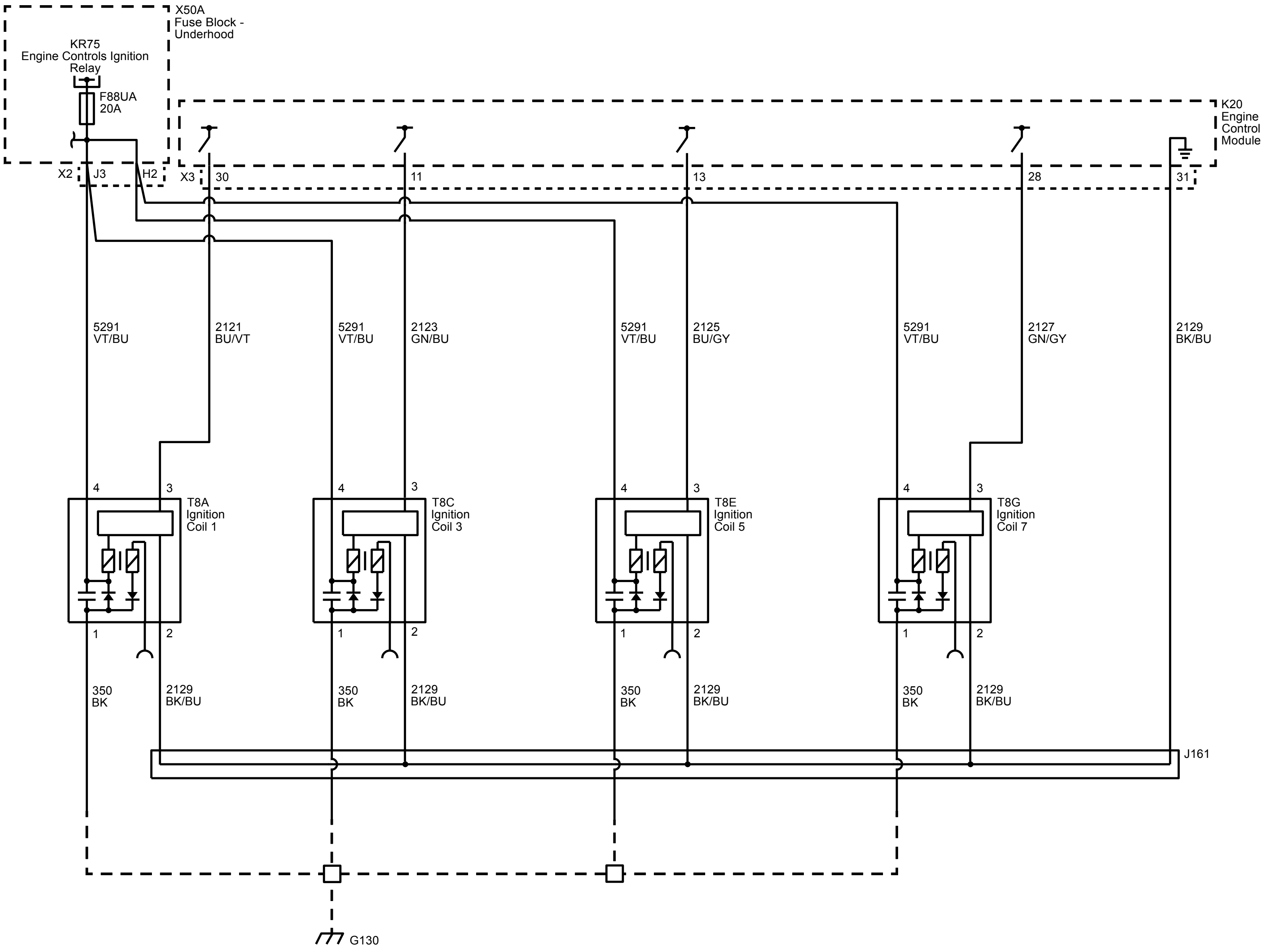
K20
Engine
Control
Module

Ignition Controls - Ignition Coils Bank 1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Engine Controls Ignition Relay
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X2
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H2
X3
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11
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28
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K20
Engine
Control
Module
5291
VT/BU
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BU/VT
5291
VT/BU
2123
GN/BU
5291
VT/BU
2125
BU/GY
5291
VT/BU
2127
GN/GY
2129
BK/BU
4
3
T8A
Ignition
Coil 1
4
3
T8C
Ignition
Coil 3
4
3
T8E
Ignition
Coil 5
4
3
T8G
Ignition
Coil 7
1
2
1
2
1
2
1
2
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BK
2129
BK/BU
350
BK
2129
BK/BU
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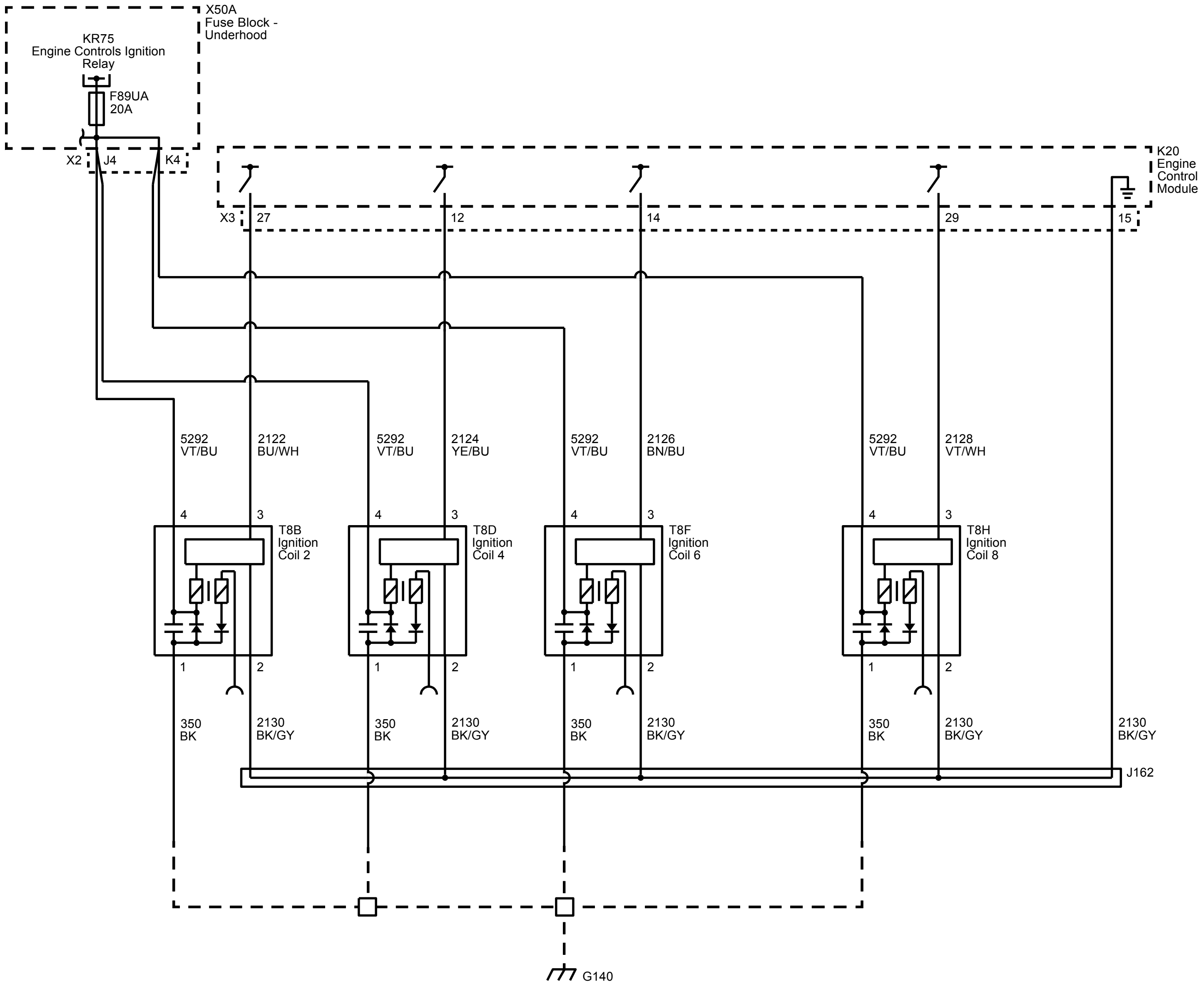
BK
2129
BK/BU
350
BK
2129
BK/BU
J161
G130

Ignition Controls - Ignition Coils Bank 2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20A
X2
J4
K4
K20
Engine Control Module
X3
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14
29
15
5292
VT/BU
2122
BU/WH
5292
VT/BU
2124
YE/BU
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VT/BU
2126
BN/BU
5292
VT/BU
2128
VT/WH
4
3
T8B
Ignition Coil 2
4
3
T8D
Ignition Coil 4
4
3
T8F
Ignition Coil 6
4
3
T8H
Ignition Coil 8
1
2
1
2
1
2
1
2
350
BK
2130
BK/GY
350
BK
2130
BK/GY
350
BK
2130
BK/GY
350
BK
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BK/GY
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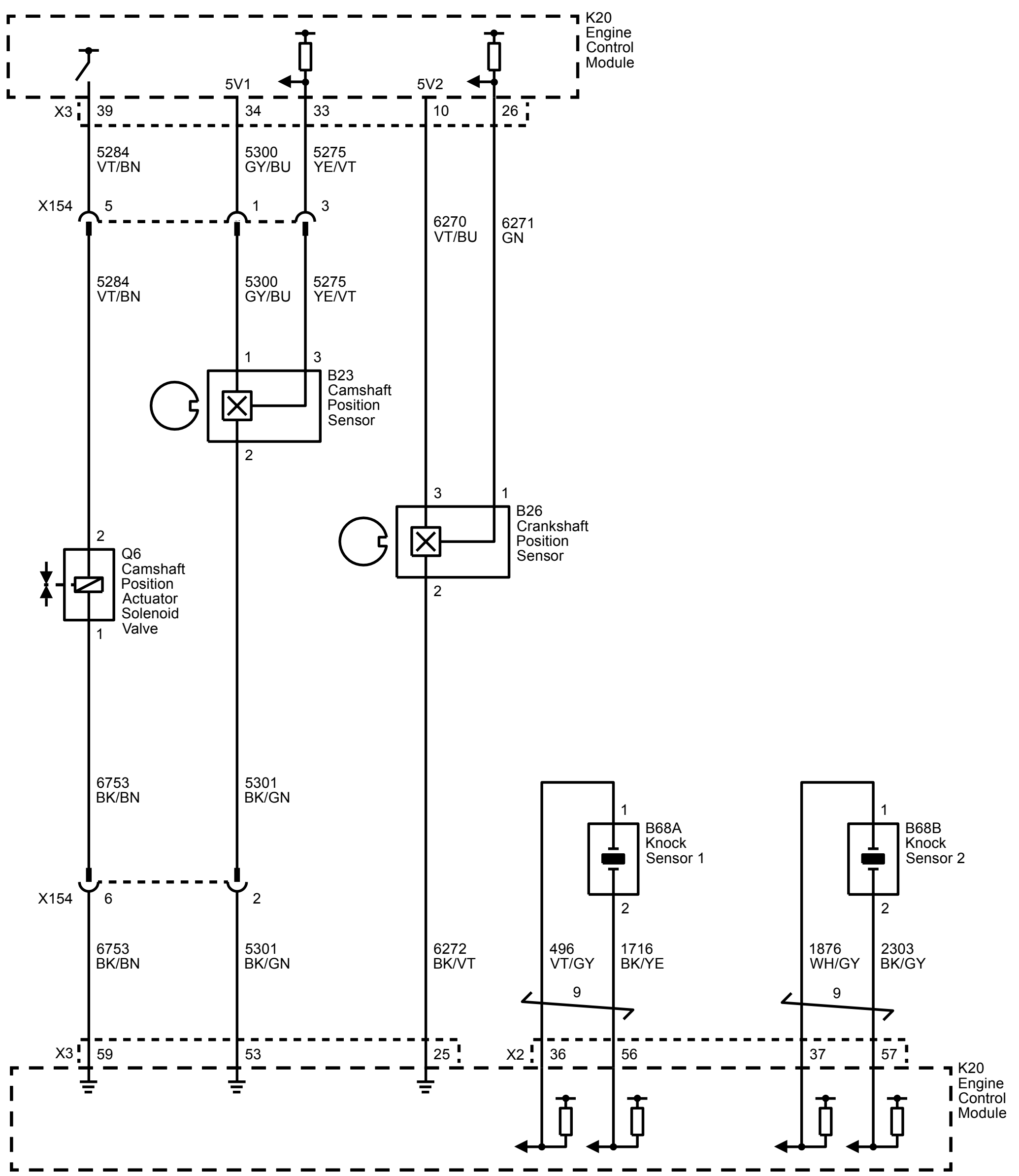
BK/GY
J162
G140

LOC
DESC

Ignition Controls - Crankshaft Position, Camshaft Position and Knock Sensors, and Camshaft Position Actuator Solenoid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34
33
10
26
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VT/BN
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GY/BU
5275
YE/VT
X154
5
1
3
6270
VT/BU
6271
GN
5284
VT/BN
5300
GY/BU
5275
YE/VT
1
3
B23
Camshaft
Position
Sensor
2
3
1
B26
Crankshaft
Position
Sensor
2
2
Q6
Camshaft
Position
Actuator
Solenoid
Valve
1
6753
BK/BN
5301
BK/GN
1
B68A
Knock
Sensor 1
2
1
B68B
Knock
Sensor 2
2
X154
6
2
6753
BK/BN
5301
BK/GN
6272
BK/VT
496
VT/GY
1716
BK/YE
1876
WH/GY
2303
BK/GY
9
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X3
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X2
36
56
37
57
K20
Engine
Control
Module

Valve Lifter Oil Manifold Assembly

LOC
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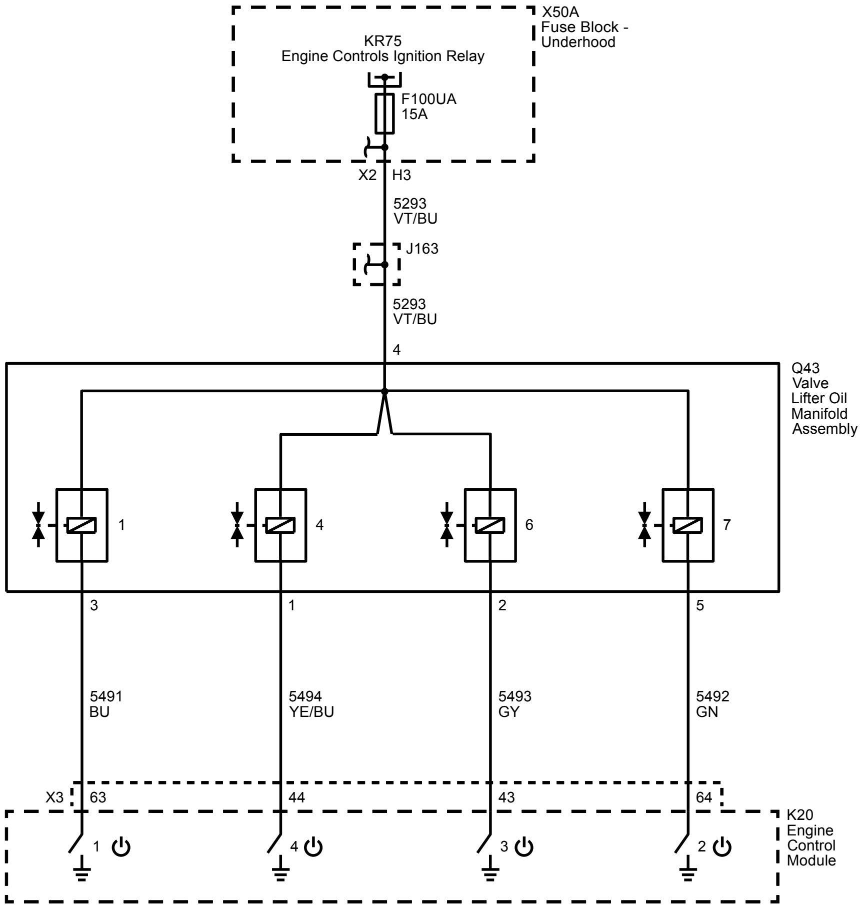
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Underhood
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X2
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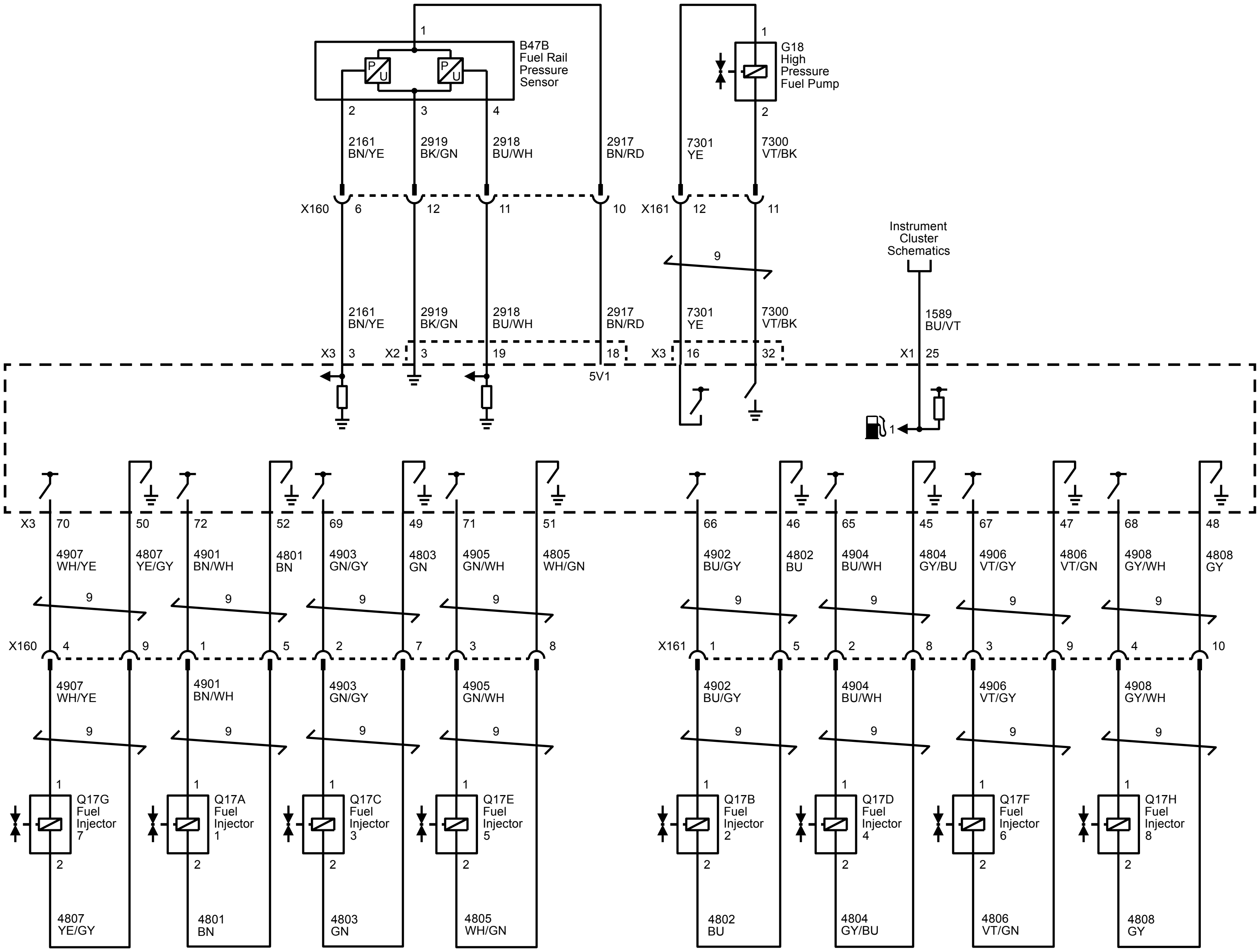
VT/BU
J163
5293
VT/BU
4
Q43
Valve
Lifter Oil
Manifold
Assembly
1
4
6
7
3
1
2
5
5491
BU
5494
YE/BU
5493
GY
5492
GN
X3
63
44
43
64
K20
Engine
Control
Module
1
4
3
2

Fuel Controls - Fuel Injectors and Fuel Pressure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P U
1
2
3
4
2161 BN/YE
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2917 BN/RD
X160
6
12
11
10
G18 High Pressure Fuel Pump
7301 YE
7300 VT/BK
X161
12
11
9
Instrument Cluster Schematics
1589 BU/VT
X3 3
X2 3
19
18
5V1
X3 16
32
X1 25
K20 Engine Control Module
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X3 70 4907 WH/YE
50 4807 YE/GY
72 4901 BN/WH
52 4801 BN
69 4903 GN/GY
49 4803 GN
71 4905 GN/WH
51 4805 WH/GN
66 4902 BU/GY
46 4802 BU
65 4904 BU/WH
45 4804 GY/BU
67 4906 VT/GY
47 4806 VT/GN
68 4908 GY/WH
48 4808 GY
X160 4 9 1 5 2 7 3 8
X161 1 5 2 8 3 9 4 10
Q17G Fuel Injector 7
Q17A Fuel Injector 1
Q17C Fuel Injector 3
Q17E Fuel Injector 5
Q17B Fuel Injector 2
Q17D Fuel Injector 4
Q17F Fuel Injector 6
Q17H Fuel Injector 8
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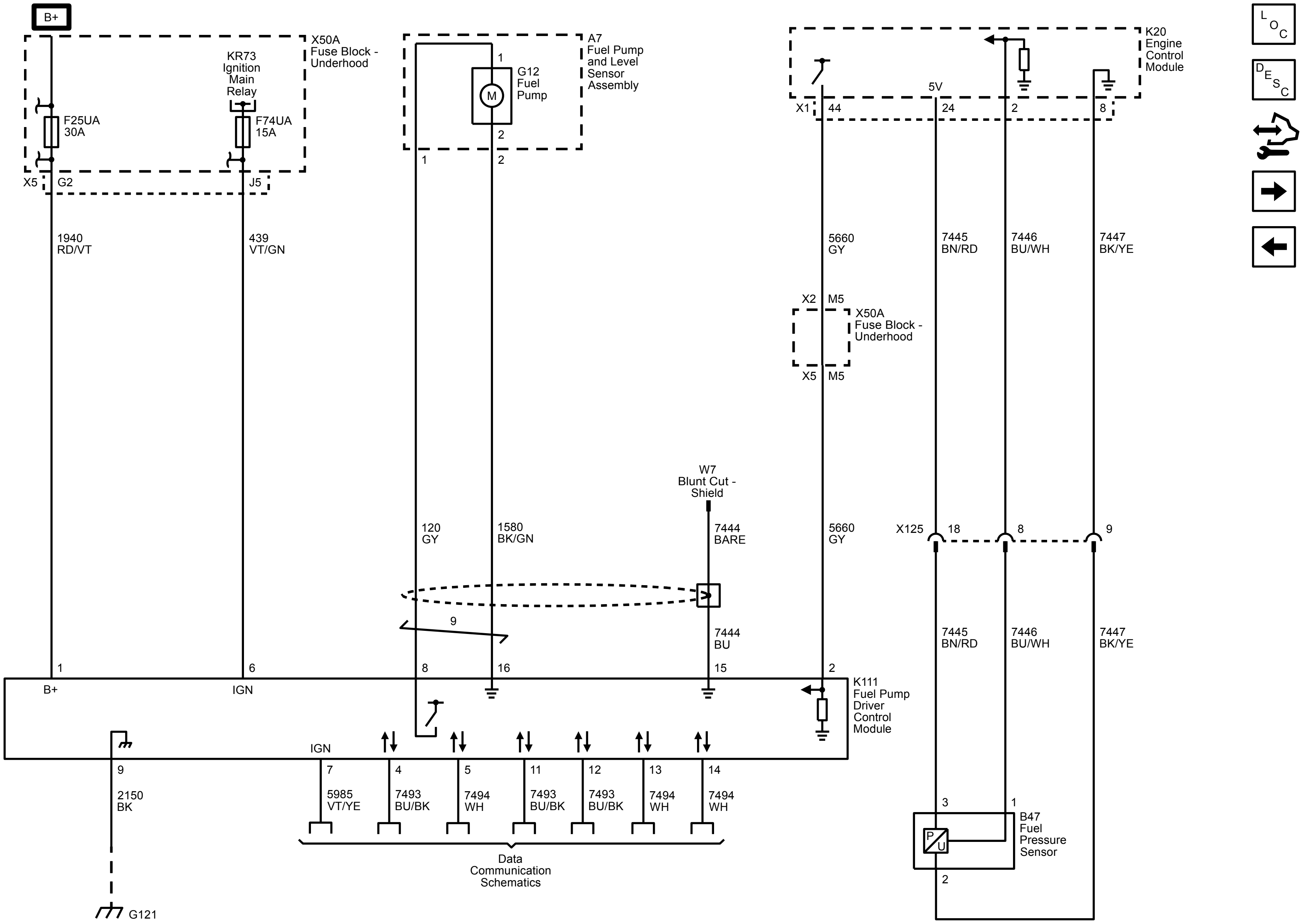
4803 GN
4805 WH/GN
4802 BU
4804 GY/BU
4806 VT/GN
4808 GY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KR73
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Relay
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30A
F74UA
15A
X5
G2
J5
1940
RD/VT
439
VT/GN
A7
Fuel Pump and Level Sensor Assembly
G12
Fuel
Pump
M
1
2
120
GY
1580
BK/GN
W7
Blunt Cut - Shield
7444
BARE
7444
BU
9
K20
Engine
Control
Module
5V
X1
44
24
2
8
5660
GY
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BN/RD
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BU/WH
7447
BK/YE
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M5
X50A
Fuse Block - Underhood
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M5
X125
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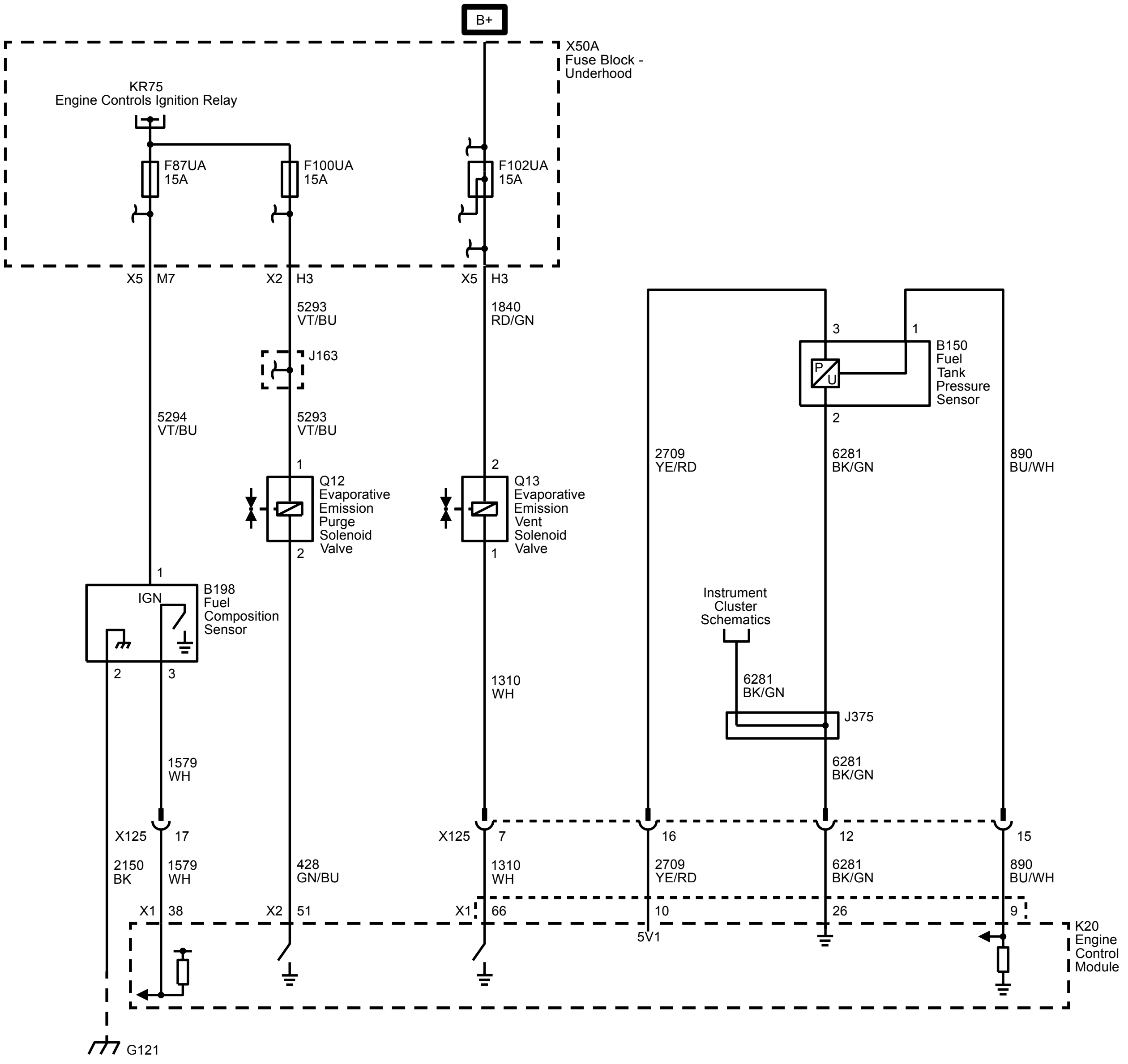
8
9
1
6
8
16
15
2
B+
IGN
K111
Fuel Pump
Driver
Control
Module
IGN
9
7
4
5
11
12
13
14
2150
BK
5985
VT/YE
7493
BU/BK
7494
WH
7493
BU/BK
7493
BU/BK
7494
WH
7494
WH
Data
Communication
Schematics
G121
3
1
2
B47
Fuel
Pressure
Sensor
P
U
L O C
D E S C

Fuel Controls - Evaporative Emissions Controls

LOC
DESC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Underhood
KR75
Engine Controls Ignition Relay
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15A
F102UA
15A
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X2 H3
X5 H3
5293
VT/BU
1840
RD/GN
J163
5294
VT/BU
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VT/BU
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Evaporative
Emission
Purge
Solenoid
Valve
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Q13
Evaporative
Emission
Vent
Solenoid
Valve
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Tank
Pressure
Sensor
P
U
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YE/RD
6281
BK/GN
890
BU/WH
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IGN
B198
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Composition
Sensor
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WH
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Cluster
Schematics
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BK/GN
J375
6281
BK/GN
1579
WH
X125 17
X125 7
16
12
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2150
BK
1579
WH
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GN/BU
1310
WH
2709
YE/RD
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BK/GN
890
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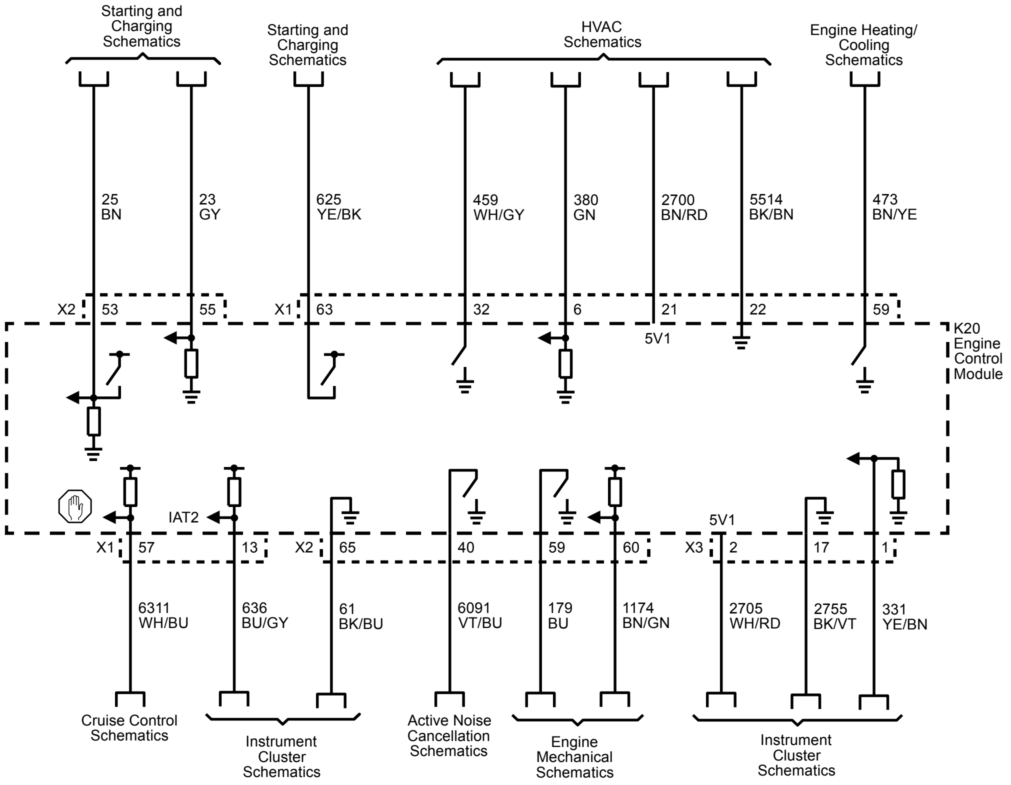
5V1
K20
Engine
Control
Module
G121

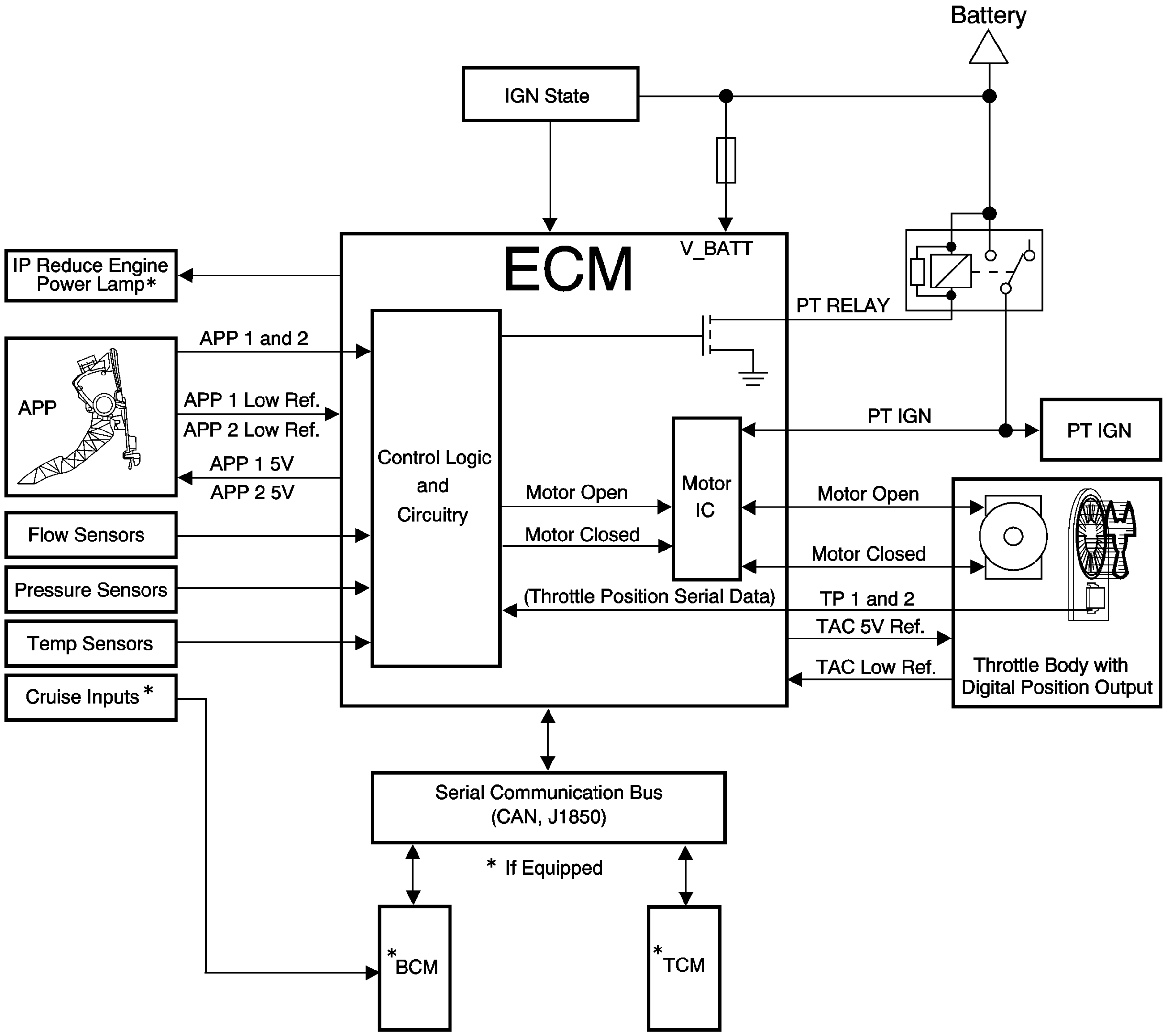
Controlled/Monitored Subsystem References



Starting and Charging Schematics
Starting and Charging Schematics
HVAC Schematics
Engine Heating/ Cooling Schematics
25 BN
23 GY
625 YE/BK
459 WH/GY
380 GN
2700 BN/RD
5514 BK/BN
473 BN/YE
X2
53
55
X1
63
32
6
21
22
59
5V1
K20 Engine Control Module
IAT2
5V1
X1
57
13
X2
65
40
59
60
X3
2
17
1
6311 WH/BU
636 BU/GY
61 BK/BU
6091 VT/BU
179 BU
1174 BN/GN
2705 WH/RD
2755 BK/VT
331 YE/BN
Cruise Control Schematics
Instrument Cluster Schematics
Active Noise Cancellation Schematics
Engine Mechanical Schematics
Instrument Cluster Schematics

Description and Operation

Throttle Actuator Control (TAC) System Description



Battery
IGN State
ECM
V_BATT
PT RELAY
IP Reduce Engine Power Lamp*
APP
APP 1 and 2
APP 1 Low Ref.
APP 2 Low Ref.
APP 1 5V
APP 2 5V
Control Logic and Circuitry
Motor IC
PT IGN
PT IGN
Motor Open
Motor Closed
Motor Open
Motor Closed
Flow Sensors
Pressure Sensors
Temp Sensors
Cruise Inputs *
(Throttle Position Serial Data)
TP 1 and 2
TAC 5V Ref.
TAC Low Ref.
Throttle Body with Digital Position Output
Serial Communication Bus (CAN, J1850)
* If Equipped
*BCM
*TCM

The engine control module (ECM) is the control center for the throttle actuator control (TAC) system. The ECM determines the driver's intent based on input from the accelerator pedal position sensors, then calculates the appropriate throttle response based on the throttle position sensors. The ECM achieves throttle positioning by providing a pulse width modulated voltage to the throttle actuator motor. The throttle blade is spring loaded in both directions, and the default position is slightly open.

Modes Of Operation

Normal Mode

During the operation of the TAC system, several modes, or functions, are considered normal. The following modes may be entered during normal operations:

- Minimum pedal value—At key-up, the ECM updates the learned minimum pedal value.
- Minimum throttle position values—At key-up, the ECM updates the learned minimum throttle position value. In order to learn the minimum throttle position value, the throttle blade is moved to the Closed position.
- Ice break mode—If the throttle blade is not able to reach a predetermined minimum throttle position, the ice break mode is entered. During the ice break mode, the ECM commands the maximum pulse width several times to the throttle actuator motor in the closing direction.
- Battery saver mode—After a predetermined time without engine speed, the ECM commands the battery saver mode. During the battery saver mode, the TAC module removes the voltage from the motor control circuits, which removes the current draw used to maintain the idle position and allows the throttle to return to the spring loaded default position.

Reduced Engine Power Mode

When the ECM detects a condition with the TAC system, the ECM may enter a reduced engine power mode. Reduced engine power may cause one or more of the following conditions:

- Acceleration limiting—The ECM will continue to use the accelerator pedal for throttle control, however, the vehicle acceleration is limited.
- Limited throttle mode—The ECM will continue to use the accelerator pedal for throttle control, however, the maximum throttle opening is limited.
- Throttle default mode—The ECM will turn OFF the throttle actuator motor, and the throttle will return to the spring loaded default position.
- Forced idle mode—The ECM will perform the following actions:
  - Limit engine speed to the idle position

  - Ignore the accelerator pedal input.
- Engine shutdown mode—The ECM will disable fuel and de-energize the throttle actuator.

Fuel System Description

Fuel System Overview

The fuel system is an electronic returnless on-demand design. A returnless fuel system reduces the internal temperature of the fuel tank by not returning hot fuel from the engine to the fuel tank. Reducing the internal temperature of the fuel tank results in lower evaporative emissions.

An electric turbine style fuel pump attaches to the fuel tank fuel pump module inside the fuel tank. The fuel pump supplies fuel through the fuel feed pipe to the high pressure fuel pump. The high pressure fuel pump supplies fuel to a variable-pressure fuel rail. Fuel enters the combustion chamber through precision multi-hole fuel injectors. The high pressure fuel pump, fuel rail pressure, fuel injection timing, and injection duration are controlled by the engine control module (ECM).

Electronic Returnless Fuel System

The electronic returnless fuel system is a microprocessor controlled fuel delivery system which transports fuel from the tank to the fuel rail. It functions as an electronic replacement for a traditional, mechanical fuel pressure regulator. The pressure relief regulator valve within the fuel tank provides an added measure of over pressure protection. Desired fuel pressure is commanded by the engine control module (ECM), and transmitted to the fuel pump driver control module via a GMLAN serial data message. A fuel pressure sensor located on the fuel feed pipe provides the feedback the engine control module requires for Closed Loop fuel pressure control.

Fuel Pump Driver Control Module

The fuel pump driver control module is a serviceable GMLAN module. The fuel pump driver control module receives the desired fuel pressure message from the engine control module (ECM) and controls the fuel pump located within the fuel tank to achieve the desired fuel pressure. The fuel pump driver control module sends a 25 kHz PWM signal to the fuel pump, and pump speed is changed by varying the duty cycle of this signal. Maximum current supplied to the fuel pump is 22 A.

Fuel Pressure Sensor

The fuel pressure sensor is a serviceable 5 V, 3-pin device. It is located on the fuel feed line forward of the fuel tank, and receives power and ground from the engine control module through a vehicle wiring harness. The sensor provides a fuel pressure signal to the engine control module, which is used to provide Closed Loop fuel pressure control.

Flexible Fuel Sensor

The flexible fuel sensor measures the ethanol-gasoline ratio of the fuel being used in a flexible fuel vehicle. Flexible fuel vehicles can be operated with a blend of ethanol and gasoline, up to 85 percent ethanol. In order to adjust the ignition timing and the fuel quantity to be injected, the engine management system requires information about the percentage of ethanol in the fuel.

The flexible fuel sensor uses quick-connect style fuel connections, an incoming fuel connection, and an outgoing fuel connection. All fuel passes through the flexible fuel sensor before continuing on to the fuel rail. The flexible fuel sensor measures two different fuel related parameters, and sends an electrical signal to the engine control module (ECM) to indicate ethanol percentage, and fuel temperature.

The flexible fuel sensor has a three-wire electrical harness connector. The three wires provide a ground circuit, a power source, and a signal output to the ECM. The power source is ignition positive voltage and the ground circuit connects to a chassis ground. The signal circuit carries both the ethanol percentage and fuel temperature within the same signal, on the same wire.

The flexible fuel sensor uses a microprocessor inside the sensor to measure the ethanol percentage and fuel temperature, and changes the output signal accordingly. The electrical characteristic of the flexible fuel sensor signal is a square-wave digital signal. The signal is both variable frequency and variable pulse width. The frequency of the signal indicates the ethanol percentage, and the pulse width indicates the fuel temperature. The ECM provides an internal pull-up to 5 V on the signal circuit, and the flexible fuel sensor pulls the 5 V to ground in pulses. The output frequency is linear to the percentage of ethanol content in the fuel. The normal range of operating frequency is between 50 and 150 Hz, with 50 Hz representing 0 percent ethanol, and 150 Hz representing 100 percent ethanol. The normal pulse width range of the digital pulses is between 1 and 5 ms, with 1 ms representing −40°C (−40°F), and 5 ms representing 151.25°C (304.25°F).

The microprocessor inside the sensor is capable of a certain amount of self-diagnosis. An output frequency of 180 Hz indicates either that the fuel is contaminated, or that an internal sensor electrical fault has been detected. Certain substances dissolved in the fuel can cause the fuel to be contaminated, raising the output frequency higher than the actual ethanol percentage should indicate. Examples of these substances include water, sodium chloride (salt), and methanol.

It should be noted that it is likely that the Flexible Fuel Sensor will indicate a slightly lower ethanol percentage than what is advertised at the fueling station. This is not a fault of the sensor. The reason has to do with government requirements for alcohol-based motor fuels. Government regulations require that alcohol intended for use as motor fuel be denatured. This means that 100 percent pure ethanol is first denatured with approximately 4½ percent gasoline, before being mixed with anything else. When an ethanol gasoline mixture is advertised as E85, the 85 percent ethanol was denatured before being blended with gasoline, meaning an advertised E85 fuel contains only about 81 percent ethanol. The Flexible Fuel Sensor measures the actual percentage of ethanol in the fuel.

Fuel Tank

The fuel tank is molded from high density polyethylenes and stores the fuel supply. The fuel tank is located on the left side of the vehicle and held in place by 2 metal straps that attach to the frame.

Fuel Tank Fuel Pump Module

The electric turbine style fuel pump attaches to the fuel tank fuel pump module inside the fuel tank and supplies fuel through the fuel feed pipe to the high pressure fuel pump. The fuel tank fuel pump module contains a reverse flow check valve. The check valve maintains fuel pressure in the fuel feed pipe in order to prevent long cranking times.

The fuel tank fuel pump module is located inside of the fuel tank. The fuel tank fuel pump module consists of the following major components:

- The fuel level sensor
- The fuel pump and reservoir assembly
- The pressure relief regulator valve
- The fuel strainer
- The primary jet pump

Fuel Level Sensor

The fuel level sensor consists of a float, a wire float arm, and a ceramic resistor card. The position of the float arm indicates the fuel level. The fuel level sensor contains a variable resistor which changes resistance in correspondence with the position of the float arm. The engine control module (ECM) sends the fuel level information via high speed CAN–bus to the body control module (BCM). The BCM then sends the fuel level percentage via low speed CAN–bus to the instrument panel cluster (IPC) in order to control the fuel gauge. The control module monitors the signal circuit of the fuel level sensor in order to determine the fuel level.

Fuel Pump

The fuel pump is mounted in the fuel tank fuel pump module reservoir. The fuel pump is an electric pump. Fuel is pumped to the high pressure fuel pump at a pressure that is based on feedback from the fuel pressure sensor. The fuel pump delivers a constant flow of fuel even during low fuel conditions and aggressive vehicle maneuvers. The fuel pump flex pipe acts to dampen the fuel pulses and noise generated by the fuel pump.

Pressure Relief Regulator Valve

The pressure relief regulator valve replaces the typical fuel pressure regulator used on a mechanical returnless fuel system. The pressure relief valve is closed during normal vehicle operation. The pressure relief regulator valve is used to vent pressure during hot soaks and also functions as a fuel pressure regulator in the event of the fuel pump driver control module defaulting to 100% pulse width modulation (PWM) of the fuel pump. Due to variation in the fuel system pressures, the opening pressure for the pressure relief regulator valve is set higher than the pressure that is used on a mechanical returnless fuel system pressure regulator.

Primary Jet Pump

The primary jet pump is located in the fuel tank fuel pump module. Fuel pump flow loss, caused by vapor expulsion in the pump inlet chamber, is diverted to the primary jet pump through a restrictive orifice located on the pump cover. The primary jet pump fills the reservoir of the fuel tank fuel pump module.

Nylon Fuel Pipes

Warning: In order to reduce the risk of fire and personal injury observe the following items:

- **Replace all nylon fuel pipes that are nicked, scratched or damaged during installation, do not attempt to repair the sections of the nylon fuel pipes**
- **Do not hammer directly on the fuel harness body clips when installing new fuel pipes. Damage to the nylon pipes may result in a fuel leak.**
- **Always cover nylon vapor pipes with a wet towel before using a torch near them. Also, never expose the vehicle to temperatures higher than 115°C (239°F) for more than one hour, or more than 90°C (194°F) for any extended period.**
- **Apply a few drops of clean engine oil to the male pipe ends before connecting fuel pipe fittings. This will ensure proper reconnection and prevent a possible fuel leak. (During normal operation, the O-rings located in the female connector will swell and may prevent proper reconnection if not lubricated.)**

Nylon pipes are constructed to withstand maximum fuel system pressure, exposure to fuel additives, and changes in temperature.

Heat resistant rubber hose or corrugated plastic conduit protect the sections of the pipes that are exposed to chafing, high temperature, or vibration.

Nylon fuel pipes are somewhat flexible and can be formed around gradual turns under the vehicle. However, if nylon fuel pipes are forced into sharp bends, the pipes kink and restrict the fuel flow. Also, once exposed to fuel, nylon pipes may become stiffer and are more likely to kink if bent too far. Take special care when working on a vehicle with nylon fuel pipes.

Quick-Connect Fittings

Quick-connect fittings provide a simplified means of installing and connecting fuel system components. The fittings consist of a unique female connector and a compatible male pipe end. O-rings, located inside the female connector, provide the fuel seal. Integral locking tabs inside the female connector hold the fittings together.

High Pressure Fuel Pump

The high fuel pressure necessary for direct injection is supplied by the high pressure fuel pump. The high pressure fuel pump is mounted on the rear of the engine under the intake manifold and is driven by a three-lobe cam on the camshaft. This high pressure fuel pump also regulates the fuel pressure using an actuator in the form of an internal solenoid-controlled valve. In order to keep the engine running efficiently under all operating conditions, the engine control module (ECM) requests pressure ranging from 2 to 15 MPa (290 to 2,176 psi), depending on engine speed and load. Output drivers in the ECM provide the high pressure fuel pump control circuit with a 12 V pulse-width modulated (PWM) signal, which regulates fuel pressure by opening and closing the control valve at specific times during pump strokes. This effectively regulates the portion of each pump stroke that is delivered to the fuel rail. The high pressure fuel pump is normally closed and will not deliver an increase in fuel pressure when the control solenoid is NOT powered. In the event of pump control failure, the high pressure system is protected by a relief valve in the pump that prevents the pressure from exceeding 21.5 MPa (3,118 psi).

Fuel Rail Assembly

The fuel rail assembly attaches to each cylinder head. The fuel rail distributes high pressure fuel to the fuel injectors. The fuel rail assembly consists of the following components:

- The direct fuel injectors
- The fuel rail pressure sensor

Fuel Injectors

The fuel injection system is a high pressure, direct injection, returnless on-demand design. The fuel injectors are mounted in the cylinder head beneath the intake ports and spray fuel directly into the combustion chamber. Direct injection requires high fuel pressure due to the fuel injector's location in the combustion chamber. Fuel pressure must be higher than compression pressure requiring a high pressure fuel pump. The fuel injectors also require more electrical power due to the high fuel pressure. The ECM supplies a separate high voltage supply circuit and a high voltage control circuit for each fuel injector. The injector high voltage supply circuit and the high voltage control circuit are both controlled by the ECM. The ECM energizes each fuel injector by grounding the control circuit. The ECM controls each fuel injector with 65 V. This is controlled by a boost capacitor in the ECM. During the 65 V boost phase, the capacitor is discharged through an injector, allowing for initial injector opening. The injector is then held open with 12 V.

The fuel injector assembly is an inside opening electrical magnetic injector. The injector has six precision machined holes that generate a cone shaped oval spray pattern. The fuel injector has a slim extended tip in order to allow a sufficient cooling jacket in the cylinder head.

Fuel Rail Pressure Sensor

The fuel rail pressure sensor is a dual analog sensor that detects fuel pressure within the fuel rail. The engine control module (ECM) provides a 5 V reference voltage on the 5 V reference circuit and ground on the low reference circuit. The ECM receives a varying signal voltage on two separate signal circuits. The ECM monitors the voltage on the fuel rail pressure sensor circuits. When the fuel pressure is high, the signal voltage is high. When the fuel pressure is low, the signal voltage is low.

Fuel Metering Modes of Operation

The ECM monitors voltages from several sensors in order to determine how much fuel to give the engine. The ECM controls the amount of fuel delivered to the engine by changing the fuel injector pulse width. The fuel is delivered under one of several modes.

Starting Mode

The ECM supplies voltage to the fuel pump control module when the ECM detects that the ignition is ON. The voltage from the ECM to the fuel pump control module remains active for 2 s, unless the engine is in Crank or Run. While this voltage is being received, the fuel pump control module closes the ground switch of the fuel tank fuel pump module and also supplies a varying voltage to the fuel tank fuel pump module in order to maintain the desired fuel line pressure. The ECM calculates the air/fuel ratio based on inputs from the engine coolant temperature (ECT), manifold absolute pressure (MAP), mass air flow (MAF), and throttle position sensors. The system stays in starting mode until the engine speed reaches a predetermined RPM.

During a cold start, the Engine Control Module (ECM) commands dual-pulse mode during Open Loop operation to improve cold start emissions. In dual-pulse mode, the injectors are energized twice during each injection event.

Clear Flood Mode

If the engine floods, the engine can be cleared by pressing the accelerator pedal down to the floor and then cranking the engine. When the throttle position sensor is at wide open throttle (WOT), the ECM reduces the fuel injector pulse width in order to increase the air to fuel ratio. The ECM holds this injector rate as long as the throttle stays wide open and the engine speed is below a predetermined RPM. If the throttle is not held wide open, the ECM returns to the starting mode.

Run Mode

The run mode has 2 conditions called Open Loop and Closed Loop. When the engine is first started and the engine speed is above a predetermined RPM, the system begins Open Loop operation. The ECM ignores the signal from the heated oxygen sensor (HO2S). The ECM calculates the air/fuel ratio based on inputs from the engine coolant temperature (ECT), manifold absolute pressure (MAP), mass air flow (MAF), and throttle position sensors. The system stays in Open Loop until meeting the following conditions:

- The HO2S has varying voltage output, showing that the HO2S is hot enough to operate properly.
- The ECT sensor is above a specified temperature.
- A specific amount of time has elapsed after starting the engine.

Specific values for the above conditions exist for each different engine, and are stored in the electrically erasable programmable read-only memory (EEPROM). The system begins Closed Loop operation after reaching these values. In Closed Loop, the ECM calculates the air/fuel ratio, injector ON time, based upon the signal from various sensors, but mainly from the HO2S. This allows the air/fuel ratio to stay very close to 14.7:1.

Acceleration Mode

When the driver pushes on the accelerator pedal, air flow into the cylinders increases rapidly. To prevent possible hesitation, the ECM increases the pulse width to the injectors to provide extra fuel during acceleration. This is also known as power enrichment. The ECM determines the amount of fuel required based upon throttle position, engine coolant temperature (ECT), manifold absolute pressure (MAP), mass air flow (MAF), and engine speed.

Deceleration Mode

When the driver releases the accelerator pedal, air flow into the engine is reduced. The ECM monitors the corresponding changes in throttle position, mass air flow (MAF), and manifold absolute pressure (MAP). The ECM shuts OFF fuel completely if the deceleration is very rapid, or for long periods, such as long, closed-throttle coast-down. The fuel shuts OFF in order to prevent damage to the catalytic converters.

Battery Voltage Correction Mode

When the battery voltage is low, the ECM compensates for the weak spark delivered by the ignition system in the following ways:

- Increasing the amount of fuel delivered
- Increasing the idle RPM
- Increasing the ignition dwell time

Fuel Cutoff Mode

The ECM cuts OFF fuel from the fuel injectors when the following conditions are met in order to protect the powertrain from damage and improve driveability:

- The ignition is OFF. This prevents engine run-on.
- The ignition is ON but there is no ignition reference signal. This prevents flooding or backfiring.
- The engine speed is too high, above red line.
- The vehicle speed is too high, above rated tire speed.
- During an extended, high speed, closed throttle coast down—This reduces emissions and increases engine braking.
- During extended deceleration, in order to prevent damage to the catalytic converters

Fuel Trim

The ECM controls the air/fuel metering system in order to provide the best possible combination of driveability, fuel economy, and emission control. The ECM monitors the heated oxygen sensor (HO2S) signal voltage while in Closed Loop and regulates the fuel delivery by adjusting the pulse width of the injectors based on this signal. The ideal fuel trim values are around 0 percent for both short and long term fuel trim. A positive fuel trim value indicates the ECM is adding fuel in order to compensate for a lean condition by increasing the pulse width. A negative fuel trim value indicates that the ECM is reducing the amount of fuel in order to compensate for a rich condition by decreasing the pulse width. A change made to the fuel delivery changes the long and short term fuel trim values. The short term fuel trim values change rapidly in response to the HO2S signal voltage. These changes fine tune the engine fueling. The long term fuel trim makes coarse adjustments to fueling in order to re-center and restore control to short term fuel trim. A scan tool can be used to monitor the short and long term fuel trim values. The long term fuel trim diagnostic is based on an average of several of the long term speed load learn cells. The ECM selects the cells based on the engine speed and engine load. If the ECM detects an excessively lean or rich condition, the ECM will set a fuel trim diagnostic trouble code (DTC).

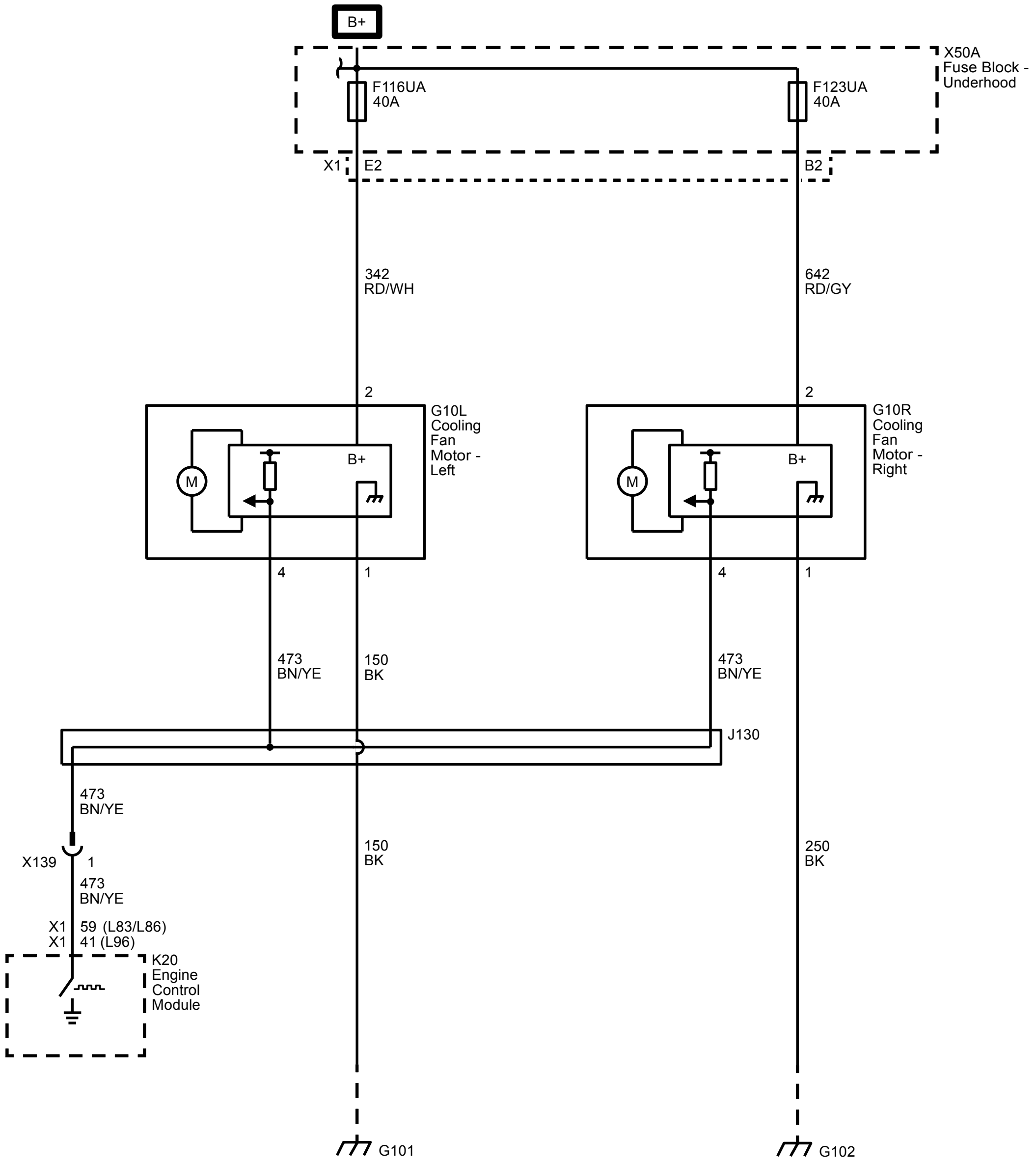
Engine/Propulsion

Engine Heating and Cooling

Schematic and Routing Diagrams

Engine Heating/Cooling Schematics

Engine Cooling Fans


B+
X50A
Fuse Block -
Underhood
F116UA
40A
F123UA
40A
X1
E2
B2
342
RD/WH
642
RD/GY
2
G10L
Cooling
Fan
Motor -
Left
M
B+
4
1
2
G10R
Cooling
Fan
Motor -
Right
M
B+
4
1
473
BN/YE
150
BK
473
BN/YE
J130
473
BN/YE
X139
1
473
BN/YE
X1
X1
59 (L83/L86)
41 (L96)
K20
Engine
Control
Module
150
BK
250
BK
G101
G102

Description and Operation

Cooling Fan Description and Operation

Cooling Fan Control

The engine cooling fan system is composed of 2 electric cooling fans, fan motors, and a control module. The engine control module (ECM) controls the fan speed by sending a pulse width modulated (PWM) signal to the cooling fan control module. The cooling fan control module varies the voltage drop across the cooling fan motors in relation to the pulse width modulated signal, which allows the cooling fans to operate at variable speeds.

The cooling fan speed is effected by many different conditions and the ECM will adjust the duty cycle from 0–100 percent based on cooling system requirements. The scan tool output control is only capable of operating the cooling fan increments, between 10–90 percent. 90 percent is considered high speed fan. When multiple cooling fan speed requests are received, the ECM operates the fan at the highest of speed requests. The ECM commands the fans ON under the following conditions:

- The engine coolant temperature is warmer than a predetermined temperature.
- The engine oil temperature is warmer than a predetermined temperature.
- The A/C pressure reaches a predetermined pressure.
- If the engine coolant temperature at key-off is warmer than a predetermined value, or the A/C pressure is greater than a predetermined value, the cooling fan will operate at a low speed. The fan will shut OFF if the temperature or pressure drops below the predetermined value, but will only operate for 2 minutes, regardless of the coolant temperature or A/C pressure.

Cooling System Electronic Component Description and Operation

Coolant Heater

The coolant heater operates using 110 V AC external power and is designed to warm the coolant in the engine block area for improved starting in very cold weather. The coolant heater also helps reduce fuel consumption when a cold engine is warming up. The unit is equipped with a detachable AC power cord. A weather shield on the cord is provided to protect the plug when not in use.

Engine or Radiator Coolant Temperature Sensor

The engine coolant temperature (ECT) sensor or radiator coolant temperature (RCT) sensor is a variable resistor that measures the temperature of the engine or radiator coolant. The ECM supplies 5 V to the sensor signal circuit and a ground for the low reference circuit.

Engine Coolant Thermostat Heater

The ECM controls the pulse width modulated (PWM) thermostat heater circuit. The engine coolant thermostat heater helps control coolant flow and regulates the engine operating temperature. The ignition relay supplies 12 V to the thermostat through a fuse. The ECM controls the engine coolant thermostat heater by grounding the control circuit with a solid state device called a driver. The driver is equipped with a feedback circuit that is pulled-up to a voltage. The ECM can determine if the control circuit is open, shorted to ground, or shorted to a voltage by monitoring the feedback voltage.

Electronic Coolant Pump

The switchable water pump is always ON in the default position. When commanded, an actuator disengages a clutch that decouples the pump from the engine. An Engine Material Sensor has been introduced on the engine head for the switchable water pump control and engine protection purposes. The engine metal temperature (EMT) sensor is present only if the switchable water pump is present in the specific application.

Engine Metal Temperature Sensor/Cylinder Head Temperature Sensor

The cylinder head temperature sensor is a variable resistor that measures the temperature of the cylinder head. The engine control module (ECM) supplies 5 V to the cylinder head temperature sensor signal circuit and a ground for the low reference circuit.

Electro-Viscous (EV) Fan Clutch

The ECM controls the EV fan clutch operation. The ECM regulates a 12-volt pulse width modulated signal (PWM) to the cooling fan relay. The PWM signal determines the ON time of the relay. As the ECM command increases, so does the ON time of the relay. The relay ON time directly controls the amount of time the solenoid, which is internal to the fan clutch, is energized. When the solenoid in the fan clutch is energized, it opens the spring loaded valve and allows fluid to flow from the storage chamber to the fluid coupling of the cooling fan clutch, which increases the fan speed. When the solenoid is de-energized, the spring loaded valve closes, and allows the fluid in the coupling of the fan clutch to drain back to the storage chamber, which reduces fan speed. The rapid modulation of the fan clutch solenoid valve gives the ECM the ability to precisely control the amount of fluid that remains in the fluid coupler, allowing more effective regulation of the fan speed and powertrain cooling requirements.

Cooling System Description and Operation

Engine Coolant Indicators

ENGINE COOLANT HOT

The instrument panel cluster (IPC) displays ENGINE COOLANT HOT message when the IPC receives a message from the powertrain control module (PCM) requesting illumination of this driver warning.

ENGINE OVERHEATED

The IPC displays ENGINE OVERHEATED message when the IPC receives a message from the PCM requesting illumination of this driver warning.

REDUCED ENGINE POWER

The IPC displays REDUCED ENGINE POWER message when the IPC detects a reduced engine power condition from the PCM. The IPC receives a message from the PCM requesting illumination when the engine temperature exceeds a calibrated value.

Coolant Heater (If Equipped)

The optional engine coolant heater (RPO K05) operates using 110-volt AC external power and is designed to warm the coolant in the engine block area for improved starting in very cold weather −18°C (0°F). The coolant heater helps reduce fuel consumption when a cold engine is warming up. The unit is equipped with a detachable AC power cord. A weather shield on the cord is provided to protect the plug when not in use.

Cooling System

The cooling system's function is to maintain an efficient engine operating temperature during all engine speeds and operating conditions. The cooling system is designed to remove approximately one-third of the heat produced by the burning of the air-fuel mixture. When the engine is cold, the coolant does not flow to the radiator until the thermostat opens. This allows the engine to warm quickly.

Cooling Cycle

Coolant is drawn from the radiator outlet and into the water pump inlet by the water pump. Coolant will then be pumped through the water pump outlet and into the engine block. In the engine block, the coolant circulates through the water jackets surrounding the cylinders, where it absorbs heat.

Some coolant is also pumped from the water pump to the heater core, then back to the water pump. This provides the passenger compartment with heat and defrost.

The coolant is then forced through the cylinder head gasket openings and into the cylinder heads. In the cylinder heads, the coolant flows through the water jackets surrounding the combustion chambers and valve seats, where it absorbs additional heat.

Coolant

The engine coolant is a solution made up of a 50-50 mixture of DEX-COOL and suitable drinking water. The coolant solution carries excess heat away from the engine to the radiator, where the heat is dissipated to the atmosphere.

Radiator

The radiator is a heat exchanger. It consists of a core and two tanks. The aluminum core is a tube and fin crossflow design that extends from the inlet tank to the outlet tank. Fins are placed around the outside of the tubes to improve heat transfer to the atmosphere.

The inlet and outlet tanks are a molded, high temperature, nylon reinforced plastic material. A high temperature rubber gasket seals the tank flange edge to the aluminum core. The tanks are clamped to the core with clinch tabs. The tabs are part of the aluminum header at each end of the core.

The radiator also has a drain cock (except HD), located in the bottom of the right hand tank. The drain cock unit includes the drain cock and drain cock seal.

The radiator removes heat from the coolant passing through it. The fins on the core transfer heat from the coolant passing through the tubes. As air passes between the fins, it absorbs heat and cools the coolant.

Surge Tank

The surge tank is a plastic tank with a threaded pressure cap. The tank is mounted at a point higher than all other coolant passages. The surge tank provides an air space in the cooling system that allows the coolant to expand and contract. The surge tank provides a coolant fill point and a central air bleed location.

During vehicle use, the coolant heats and expands. The increased coolant volume flows into the surge tank. As the coolant circulates, any air is allowed to bubble out. Coolant without air bubbles absorbs heat much better than coolant with bubbles.

During vehicle use, the coolant heats and expands. The increased coolant volume can in some conditions push past the pressure cap and through a channel into the overflow bottle. As the coolant circulates, air is allowed to bubble out. This air is then transferred to the overflow bottle, through the surge tank cap, where it returns to the atmosphere. Coolant without air bubbles absorbs heat much better than coolant with bubbles. When the engine cools, the coolant, without air bubbles, contracts back into the surge tank from the bottom of the overflow bottle.

Pressure Cap

The pressure cap seals the cooling system. It contains a blow off or pressure relief valve and a vacuum or atmospheric valve. The pressure valve is held against its seat by a spring, which protects the radiator from excessive cooling system pressure. The vacuum valve is held against its seat by a spring, which permits opening of the valve to relieve vacuum created in the cooling system as it cools off. The vacuum, if not relieved, might cause the radiator and/or coolant hoses to collapse.

The pressure cap allows cooling system pressure to build up as the temperature increases. As the pressure builds, the boiling point of the coolant increases. Engine coolant can be safely run at a temperature much higher than the boiling point of the coolant at atmospheric pressure. The hotter the coolant is, the faster the heat transfers from the radiator to the cooler, passing air.

The pressure in the cooling system can get too high. When the cooling system pressure exceeds the rating of the pressure cap, it raises the pressure valve, venting the excess pressure.

As the engine cools down, the temperature of the coolant drops and a vacuum is created in the cooling system. This vacuum causes the vacuum valve to open, allowing outside air into the surge tank. This equalizes the pressure in the cooling system with atmospheric pressure, preventing the radiator and coolant hoses from collapsing.

Air Baffles and Seals

The cooling system uses deflectors, air baffles and air seals to increase cooling system capability. Deflectors are installed under the vehicle to redirect airflow beneath the vehicle and through the radiator to increase engine cooling. Air baffles are also used to direct airflow through the radiator and increase cooling capability. Air seals prevent air from bypassing the radiator and A/C condenser, and prevent recirculation of hot air for better hot weather cooling and A/C condenser performance.

Cooling Fan and Clutch

The engine cooling fan and clutch are driven by the crankshaft via the drive belt. The cooling fan draws air through the radiator to improve the transfer of heat from the coolant to the atmosphere. As the fan blades spin, they pull cool, outside air past the radiator core. The fan clutch drives the cooling fan. The fan clutch controls the amount of torque that is transmitted from the crankshaft to the fan blades. The clutch allows more torque to engage on the fan when the engine operating temperature increases and/or the vehicle speed is low. As the torque increases, the fan turns more quickly. The fan clutch decreases the torque applied to the cooling fan when the engine temperature decreases and/or the vehicle speed is high. As the torque decreases, the fan speed decreases.

Transmission Oil Cooler

The transmission oil cooler is a heat exchanger. It is located inside the right side (V6) or left side (V8), end tank of the radiator. The transmission fluid temperature is regulated by the temperature of the engine coolant that surrounds the oil cooler as the transmission fluid passes through the cooler.

The transmission oil pump, pumps the fluid through the transmission oil cooler feed line to the oil cooler. The fluid then flows through the cooler while the engine coolant absorbs heat from the fluid. The fluid is then pumped through the transmission oil cooler return line, to the transmission.

Engine Oil Cooler

The engine oil cooler is a heat exchanger located inside the left side (V6) or right side (V8), end tank of the radiator. The engine oil temperature is controlled by the temperature of the engine coolant that surrounds the oil cooler in the radiator.

The engine oil pump, pumps the oil through the engine oil cooler line to the oil cooler. The oil then flows through the cooler where the engine coolant absorbs heat from the oil. The oil is then pumped through the oil cooler return line, to the engine block system.

Cooling Fan Control – Two Fan System

The engine cooling fan system consists of 2 electrical cooling fans, with a microcontroller that receives and allows the powertrain control module (PCM) to operate both fans together at several speeds. The cooling fans and fan PWM Signal receive battery positive voltage from the underhood fuse block.

During closed loop mode (PWM signal between 10% and 91%), both cooling fans will run at a controlled speed, depending on the percentage of PWM signal is being sent. At this closed loop mode, both fans will run at the speed it is being indicated according to the signal is being read by the microcontroller.

During open loop mode (PWM signal between 92% and 95%), both cooling fans will run at a non-controlled speed, this mode is when the fans will run at the maximum speed giving the maximum airflow, this mode is activated when conditions being mentioned later in this document activate it.

Note: The right and left cooling fan connectors are interchangeable. When servicing the fans be sure that the connectors are plugged into the correct fan.

The PCM commands the low speed cooling fans ON under the following conditions:

- Engine coolant temperature exceeds a calibrated value.
- A/C refrigerant pressure exceeds a calibrated value.
- After the vehicle is shut OFF if the engine coolant temperature at key-off is:
    - 107°C-112°C then enable low speed fans.
    - 105°C then disable low speed fans.
    - 112°C then enable high speed fan.
    - 105°C then disable high speed fans.
    - The fans (high and low speed) will turn off after a maximum 5 min.

The PCM commands the high speed fans ON under the following conditions:

- Engine coolant temperature exceeds a calibrated value.
- A/C refrigerant pressure exceeds a calibrated value.
- When certain DTCs set.

At idle and very low vehicle speeds the cooling fans are only allowed to increase in speed if required. This insures idle stability by preventing the fans from cycling between high and low speed.

HVAC

Heating, Ventilation, and Air Conditioning

Description and Operation

Heating and Air Conditioning System Description and Operation

Engine Coolant

Engine coolant is the key element of the heating system. The engine thermostat controls the normal engine operating coolant temperature. Coolant pumped out of the engine enters the heater core through the inlet heater hose. The air flowing through the HVAC module absorbs the heat of the coolant flowing through the heater core. The coolant then exits the heater core through the heater outlet hose and returns back to the engine block.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a and R-1234yf are very low temperature gases that can transfer the undesirable heat from the passenger compartment to the outside air.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure in the A/C system. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the high pressure A/C switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the TXV.

The TXV is located at the evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the TXV, the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the TXV. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant to boil inside the evaporator core.

The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state. This completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

A/C Cycle with Auxiliary

The auxiliary A/C system operates from the vehicles primary A/C system. The front or primary A/C system must be ON to allow the rear A/C system to function.

The liquid refrigerant, flows from the front system to the rear A/C system into the rear thermal expansion valve (TXV). The rear TXV is located at the rear evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the rear A/C system. As the refrigerant passes through the TXV, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the expansion device. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the rear A/C module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the primary A/C systems suction line. Refrigerant in the primary A/C system suction line flows back to the compressor, in a vapor state, and completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the rear A/C module for passenger comfort. The heat and moisture removed from the rear passenger compartment will also change form, or condense, and is discharged from the rear A/C module as water.

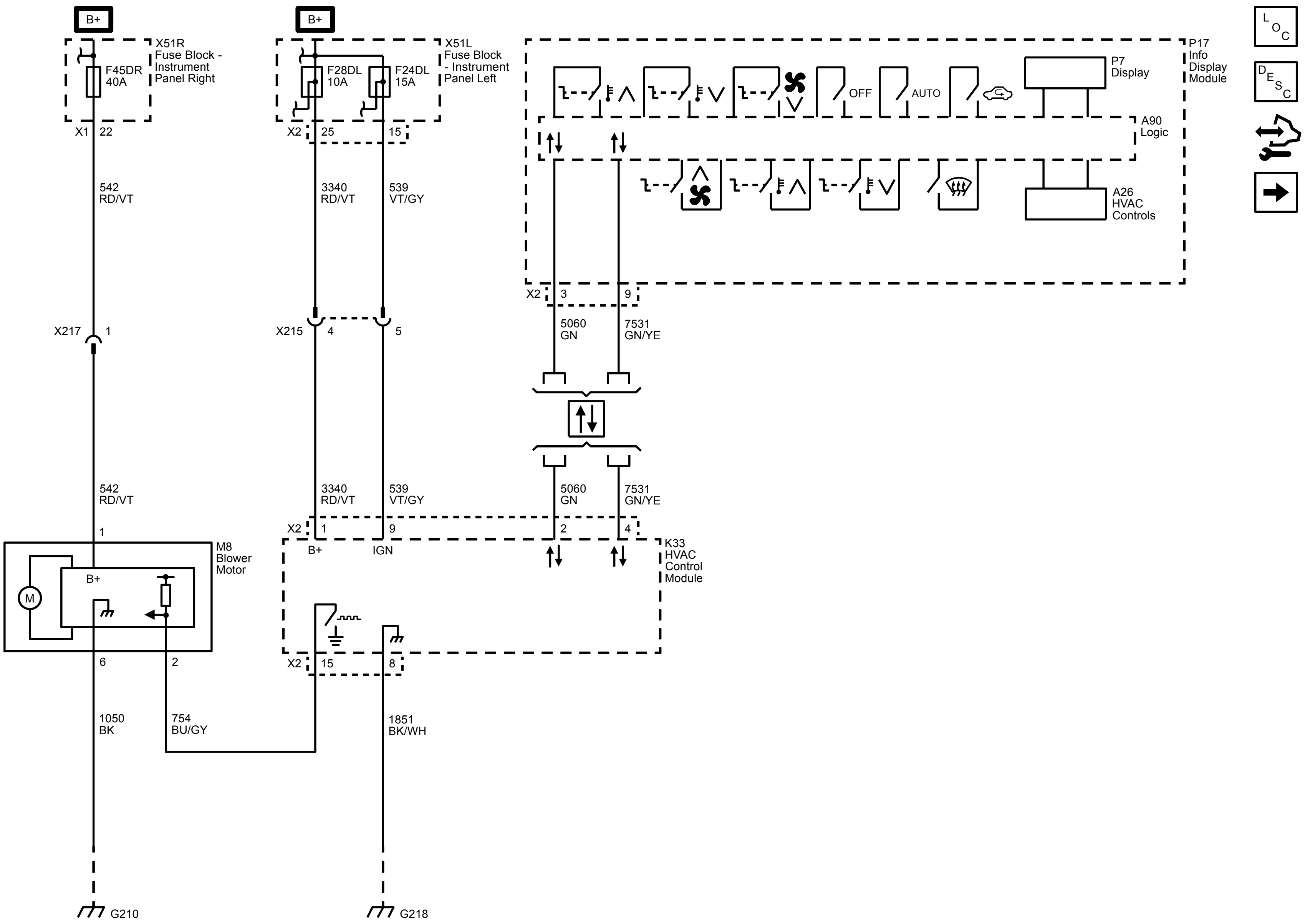
HVAC

HVAC - Automatic

Schematic and Routing Diagrams

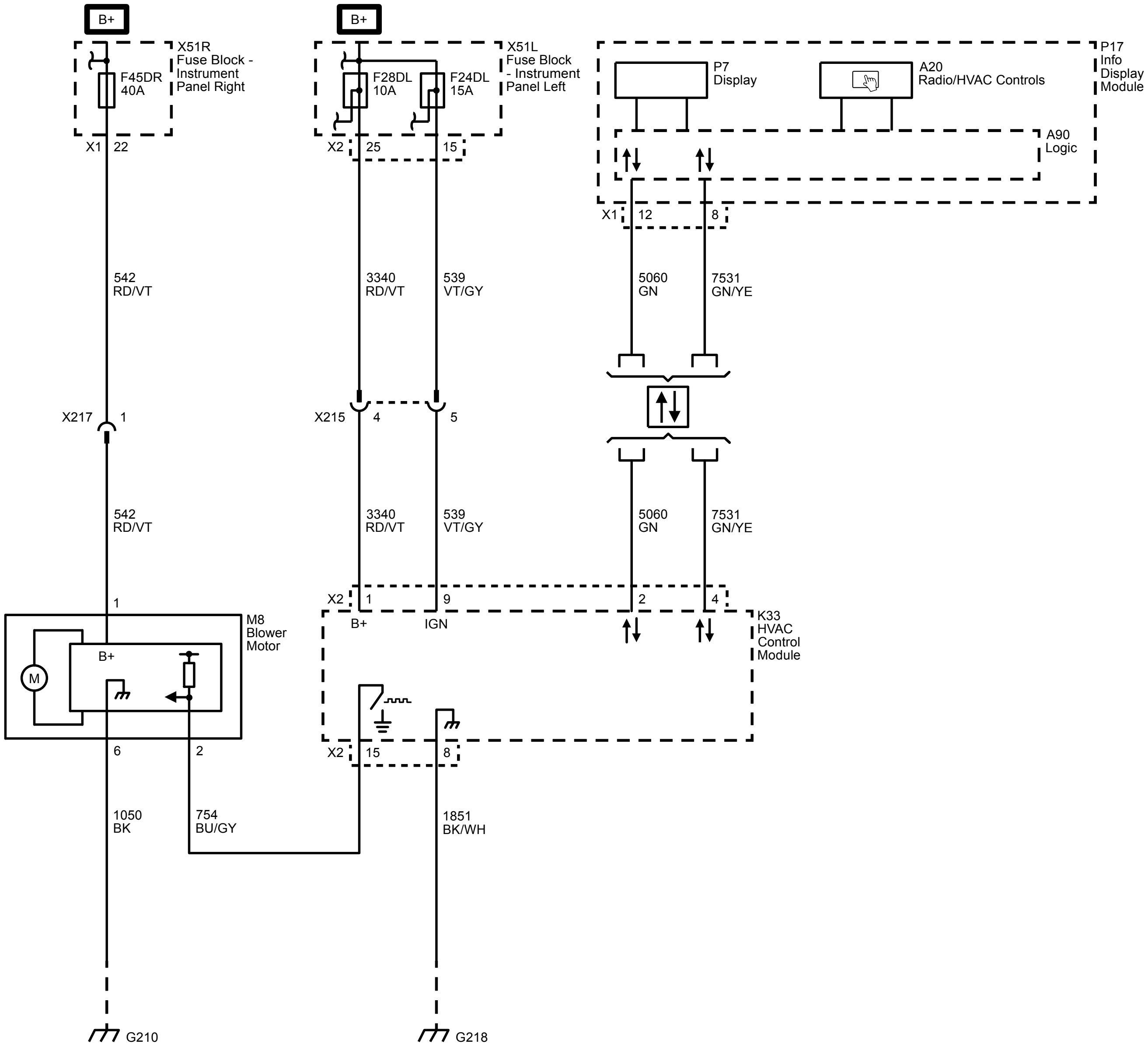
HVAC Schematics

Power, Ground, Serial Data and Front Blower Controls (X88 or Z88)



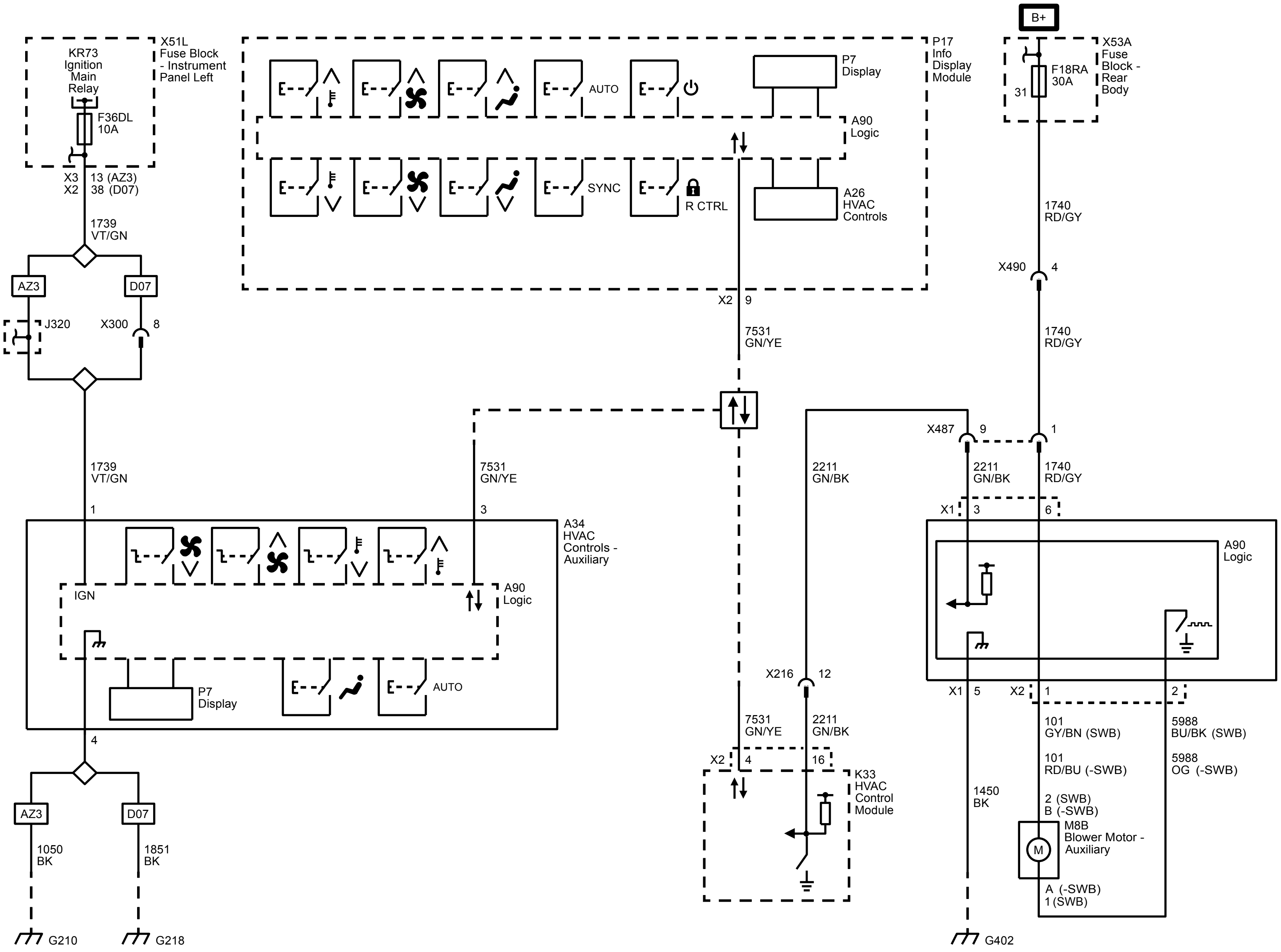
B+
X51R
Fuse Block -
Instrument
Panel Right
F45DR
40A
X1
22
542
RD/VT
X217
1
542
RD/VT
1
M8
Blower
Motor
M
B+
6
2
1050
BK
754
BU/GY
G210
B+
X51L
Fuse Block
- Instrument
Panel Left
F28DL
10A
F24DL
15A
X2
25
15
3340
RD/VT
539
VT/GY
X215
4
5
3340
RD/VT
539
VT/GY
X2
1
9
B+
IGN
X2
15
8
1851
BK/WH
G218
P17
Info
Display
Module
P7
Display
OFF
AUTO
A90
Logic
A26
HVAC
Controls
X2
3
9
5060
GN
7531
GN/YE
5060
GN
7531
GN/YE
2
4
K33
HVAC
Control
Module
L
O
C
D
E
S
C

Power, Ground, Serial Data and Front Blower Controls (Z75)


B+
X51R
Fuse Block - Instrument Panel Right
F45DR
40A
X1
22
542
RD/VT
X217
1
542
RD/VT
1
M8
Blower Motor
M
B+
6
2
1050
BK
754
BU/GY
G210
B+
X51L
Fuse Block - Instrument Panel Left
F28DL
10A
F24DL
15A
X2
25
15
3340
RD/VT
539
VT/GY
X215
4
5
3340
RD/VT
539
VT/GY
X2
1
9
B+
IGN
K33
HVAC Control Module
X2
15
8
1851
BK/WH
G218
P17
Info Display Module
P7
Display
A20
Radio/HVAC Controls
A90
Logic
X1
12
8
5060
GN
7531
GN/YE
5060
GN
7531
GN/YE
2
4

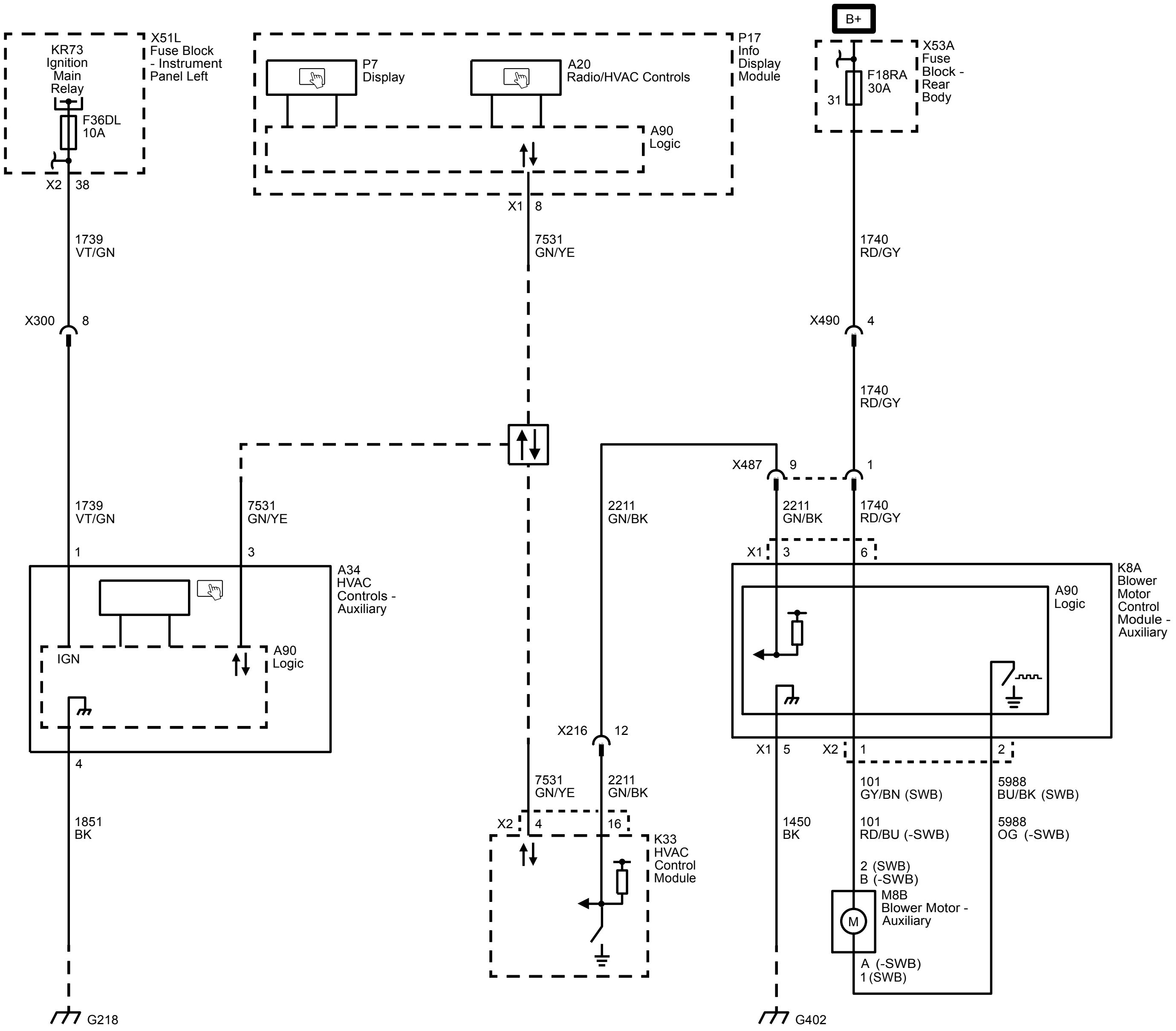
LOC
DESC

Auxiliary Blower Controls (X88 or Z88)

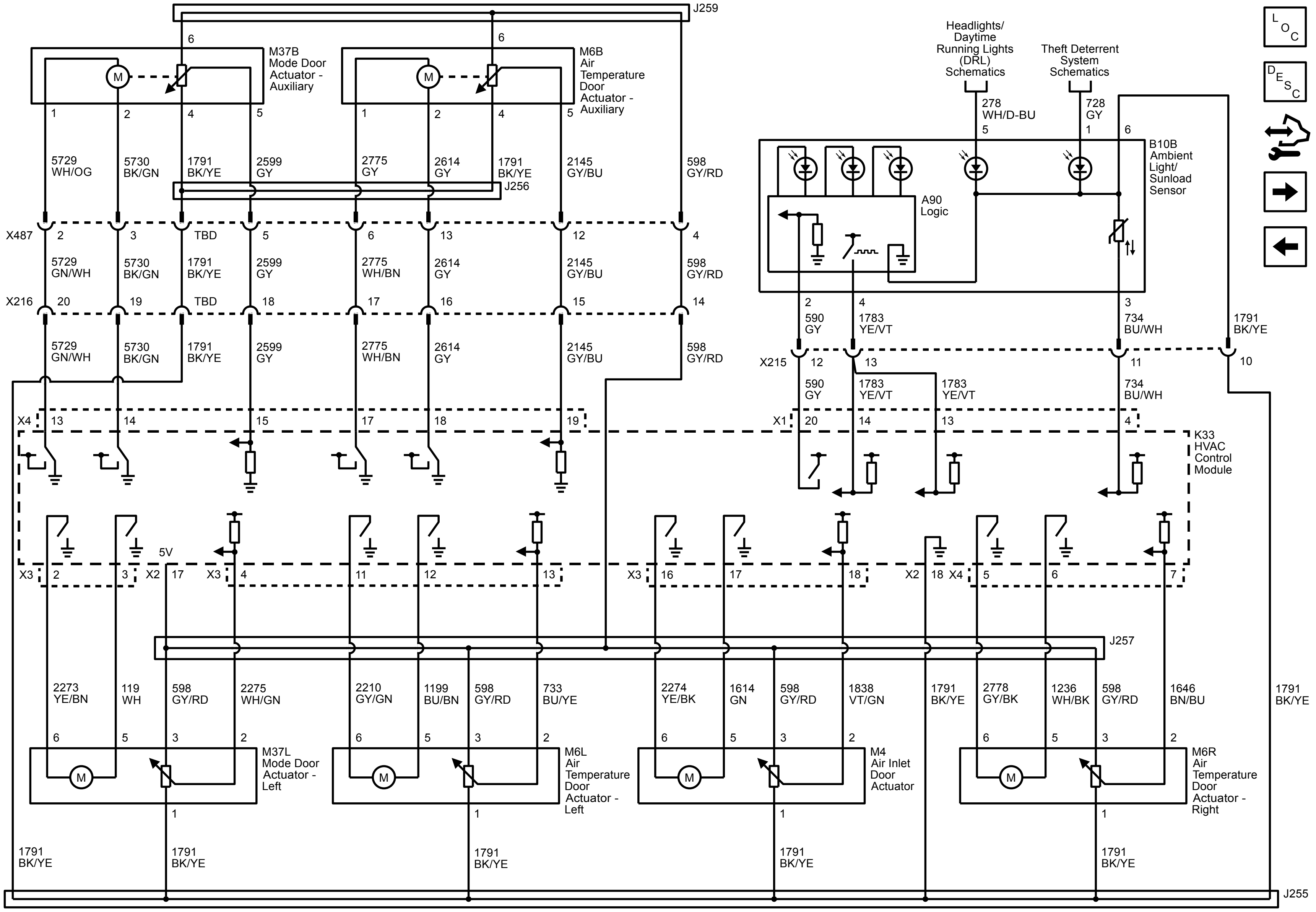


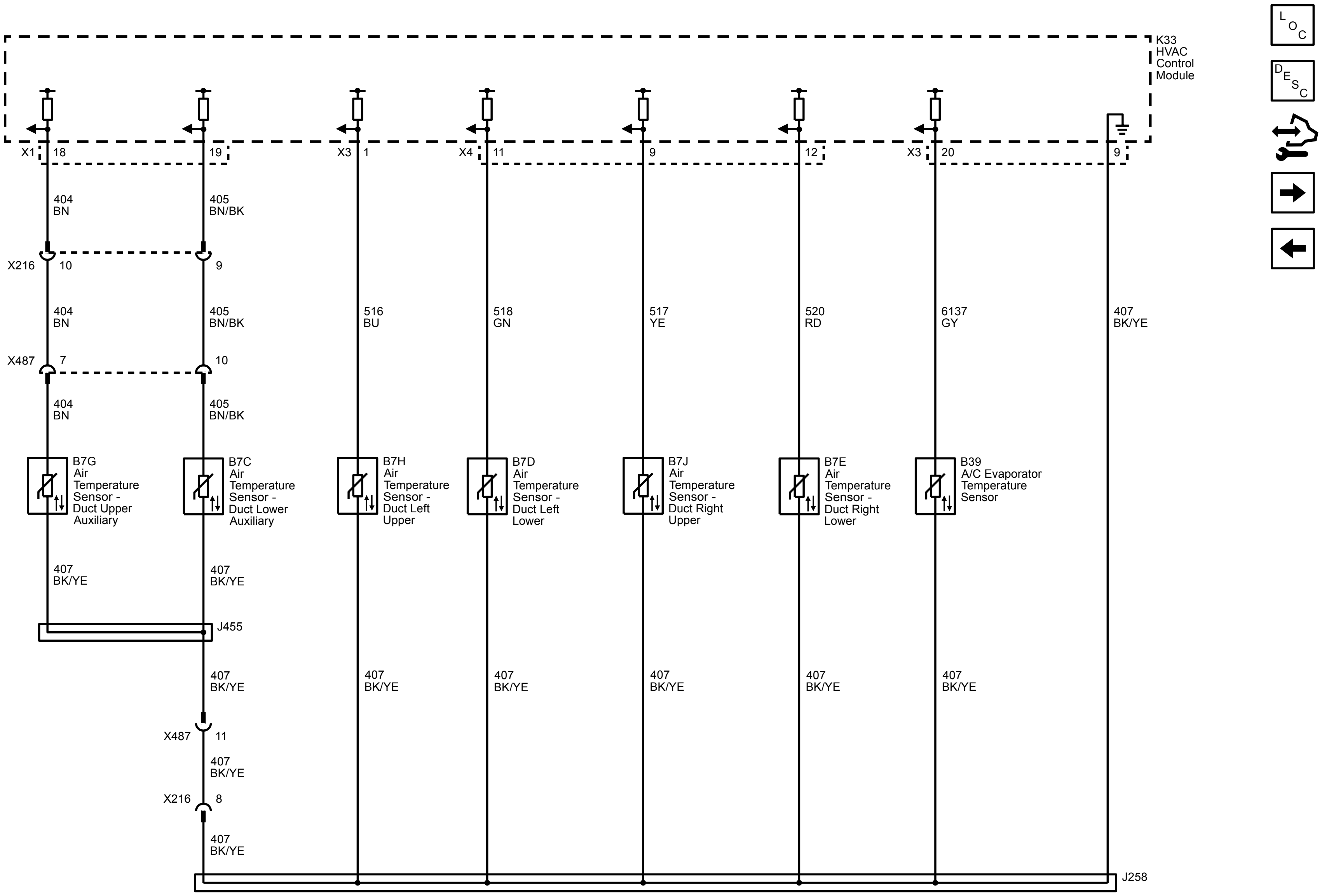
KR73
Ignition
Main
Relay
X51L
Fuse Block
- Instrument
Panel Left
F36DL
10A
X3
X2
13 (AZ3)
38 (D07)
1739
VT/GN
AZ3
D07
J320
X300
8
1739
VT/GN
1
P17
Info
Display
Module
P7
Display
AUTO
A90
Logic
SYNC
R CTRL
A26
HVAC
Controls
X2
9
7531
GN/YE
7531
GN/YE
3
A34
HVAC
Controls -
Auxiliary
IGN
A90
Logic
P7
Display
AUTO
4
AZ3
D07
1050
BK
1851
BK
G210
G218
B+
X53A
Fuse
Block -
Rear
Body
F18RA
30A
31
1740
RD/GY
X490
4
1740
RD/GY
X487
9
1
2211
GN/BK
2211
GN/BK
1740
RD/GY
X1
3
6
K8A
Blower
Motor
Control
Module -
Auxiliary
A90
Logic
X1
5
X2
1
2
X216
12
7531
GN/YE
2211
GN/BK
X2
4
16
K33
HVAC
Control
Module
101
GY/BN (SWB)
101
RD/BU (-SWB)
5988
BU/BK (SWB)
5988
OG (-SWB)
1450
BK
2 (SWB)
B (-SWB)
M8B
Blower Motor -
Auxiliary
M
A (-SWB)
1 (SWB)
G402

Auxiliary Blower Controls (Z75)


KR73
Ignition
Main
Relay
X51L
Fuse Block
- Instrument
Panel Left
F36DL
10A
X2 38
1739
VT/GN
X300 8
P7
Display
A20
Radio/HVAC Controls
P17
Info
Display
Module
A90
Logic
X1 8
7531
GN/YE
B+
X53A
Fuse
Block -
Rear
Body
F18RA
30A
31
1740
RD/GY
X490 4
X487 9 1
2211
GN/BK
1
3
A34
HVAC
Controls -
Auxiliary
IGN
A90
Logic
4
1851
BK
G218
X216 12
X2 4 16
K33
HVAC
Control
Module
X1 3 6
K8A
Blower
Motor
Control
Module -
Auxiliary
A90
Logic
X1 5 X2 1 2
101
GY/BN (SWB)
101
RD/BU (-SWB)
5988
BU/BK (SWB)
5988
OG (-SWB)
1450
BK
2 (SWB)
B (-SWB)
M
M8B
Blower Motor -
Auxiliary
A (-SWB)
1 (SWB)
G402

Ambient Light/Sunload Sensor and Mode Doors


J259
6
M37B
Mode Door
Actuator -
Auxiliary
6
M6B
Air
Temperature
Door
Actuator -
Auxiliary
M
M
1
2
4
5
1
2
4
5
5729
WH/OG
5730
BK/GN
1791
BK/YE
2599
GY
2775
GY
2614
GY
1791
BK/YE
2145
GY/BU
598
GY/RD
J256
Headlights/
Daytime
Running Lights
(DRL)
Schematics
Theft Deterrent
System
Schematics
278
WH/D-BU
5
728
GY
1
6
B10B
Ambient
Light/
Sunload
Sensor
A90
Logic
X487
2
3
TBD
5
6
13
12
4
5729
GN/WH
5730
BK/GN
1791
BK/YE
2599
GY
2775
WH/BN
2614
GY
2145
GY/BU
598
GY/RD
X216
20
19
TBD
18
17
16
15
14
5729
GN/WH
5730
BK/GN
1791
BK/YE
2599
GY
2775
WH/BN
2614
GY
2145
GY/BU
598
GY/RD
2
590
GY
4
1783
YE/VT
3
734
BU/WH
1791
BK/YE
X215
12
13
11
10
590
GY
1783
YE/VT
1783
YE/VT
734
BU/WH
X4
13
14
15
17
18
19
X1
20
14
13
4
K33
HVAC
Control
Module
5V
X3
2
3
X2
17
X3
4
11
12
13
X3
16
17
18
X2
18
X4
5
6
7
J257
2273
YE/BN
119
WH
598
GY/RD
2275
WH/GN
2210
GY/GN
1199
BU/BN
598
GY/RD
733
BU/YE
2274
YE/BK
1614
GN
598
GY/RD
1838
VT/GN
1791
BK/YE
2778
GY/BK
1236
WH/BK
598
GY/RD
1646
BN/BU
1791
BK/YE
6
5
3
2
M37L
Mode Door
Actuator -
Left
6
5
3
2
M6L
Air
Temperature
Door
Actuator -
Left
6
5
3
2
M4
Air Inlet
Door
Actuator
6
5
3
2
M6R
Air
Temperature
Door
Actuator -
Right
M
M
M
M
1
1
1
1
1791
BK/YE
1791
BK/YE
1791
BK/YE
1791
BK/YE
1791
BK/YE
J255
L O C
D E S C


K33
HVAC
Control
Module
X1
18
19
X3
1
X4
11
9
12
X3
20
9
404
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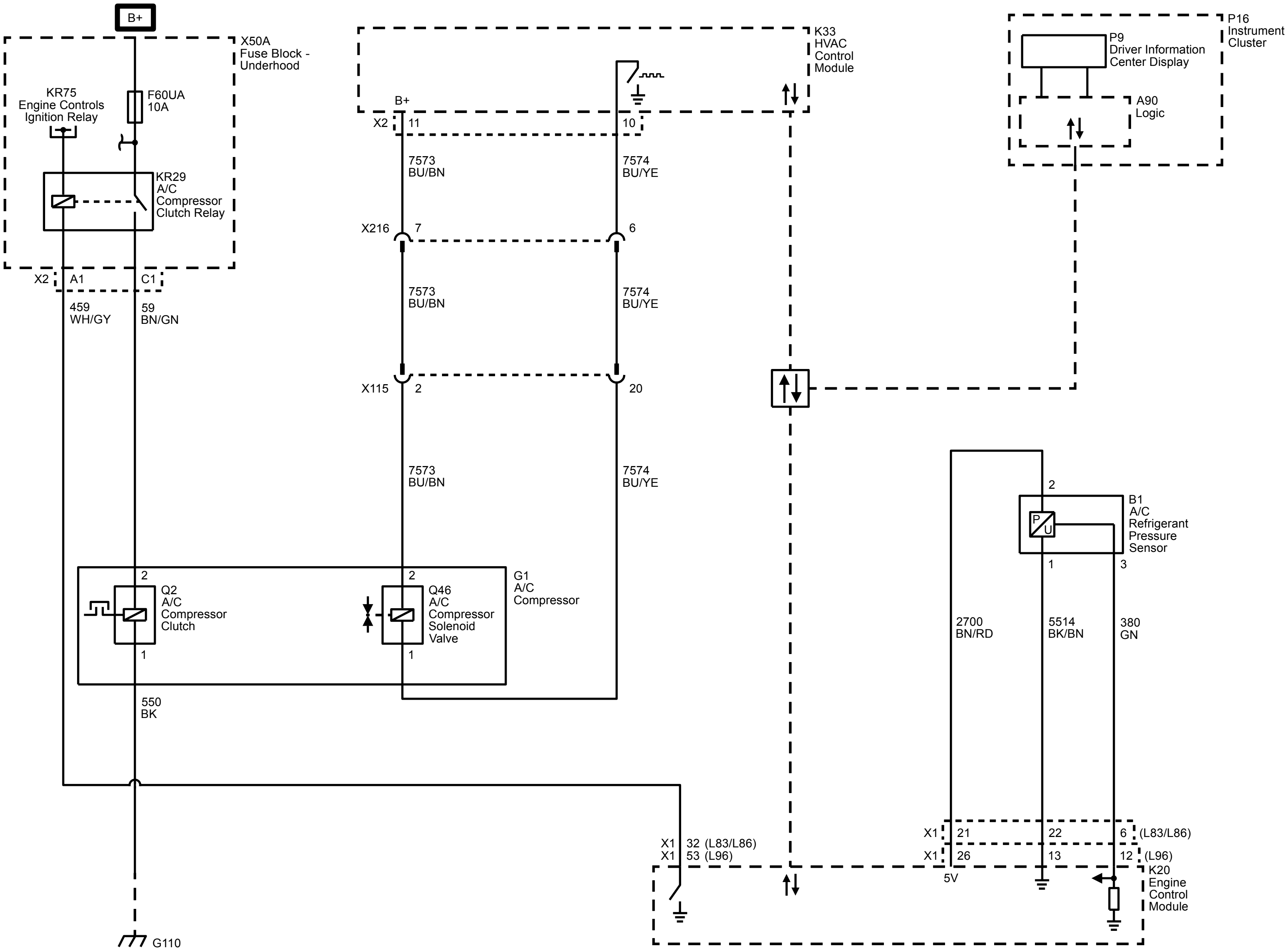
405
BN/BK
X216
10
9
404
BN
405
BN/BK
516
BU
518
GN
517
YE
520
RD
6137
GY
407
BK/YE
X487
7
10
404
BN
405
BN/BK
B7G
Air
Temperature
Sensor -
Duct Upper
Auxiliary
B7C
Air
Temperature
Sensor -
Duct Lower
Auxiliary
B7H
Air
Temperature
Sensor -
Duct Left
Upper
B7D
Air
Temperature
Sensor -
Duct Left
Lower
B7J
Air
Temperature
Sensor -
Duct Right
Upper
B7E
Air
Temperature
Sensor -
Duct Right
Lower
B39
A/C Evaporator
Temperature
Sensor
407
BK/YE
407
BK/YE
J455
407
BK/YE
407
BK/YE
407
BK/YE
407
BK/YE
407
BK/YE
407
BK/YE
X487
11
407
BK/YE
X216
8
407
BK/YE
J258
L O C
D E S C

A/C Compressor Controls


B+
X50A
Fuse Block -
Underhood
KR75
Engine Controls
Ignition Relay
F60UA
10A
KR29
A/C
Compressor
Clutch Relay
X2
A1
C1
459
WH/GY
59
BN/GN
K33
HVAC
Control
Module
B+
X2
11
10
7573
BU/BN
7574
BU/YE
X216
7
6
7573
BU/BN
7574
BU/YE
X115
2
20
7573
BU/BN
7574
BU/YE
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
2
B1
A/C
Refrigerant
Pressure
Sensor
P
U
1
3
G1
A/C
Compressor
2
Q2
A/C
Compressor
Clutch
1
2
Q46
A/C
Compressor
Solenoid
Valve
1
550
BK
2700
BN/RD
5514
BK/BN
380
GN
X1
32 (L83/L86)
X1
53 (L96)
X1
21
22
6 (L83/L86)
X1
26
13
12 (L96)
5V
K20
Engine
Control
Module
G110

Description and Operation

Automatic HVAC Description and Operation

The air temperature and the air delivery description and operation are divided into eight areas:

- HVAC Control Components
- Air Speed (Front)
- Air Speed (Rear)
- Air Delivery (Front)
- Air Delivery (Rear)
- Heating and A/C Operation
- Recirculation Operation
- Automatic Operation
- Engine Coolant
- A/C Cycle

HVAC Control Components

HVAC Control

The HVAC control contains all switches, buttons, and dials which are required to control the functions of the HVAC system and serve as interface between the operator and the HVAC control module. The selected values are passed to the HVAC control module via LIN-Bus.

HVAC Control Module

The HVAC control module is a GMLAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The battery positive voltage circuit provides power that the HVAC control module uses for keep alive memory. If the battery positive voltage circuit loses power, all HVAC DTCs and settings will be erased from keep alive memory. The body control module (BCM), which is the vehicle mode master, provides a device ON-Signal. The HVAC control module provides blower, air delivery mode and air temperature settings.

The HVAC control module supports the following features:

Feature	Availability
Afterblow	Available if reprogrammed by the technician
Purge	Yes
Personalization	Yes
Actuator Calibration	Yes

Actuators

Doors in the HVAC case assembly are used to control air flow. The HVAC control module operates the doors through the use of actuators, with one actuator being used for each door. The system has the following air control doors and associated actuators: mode, left and right temperature, and recirculation.

Each actuator used in the system is a 5-wire bi-directional electric motor that incorporate a feedback potentiometer. The five circuits are, low reference, 5 V reference, actuator position signal, and two control circuits. The control circuits use either a ground or 12 V value to coordinate the actuator movement. In order to move the actuator, the HVAC control module grounds one of the control circuits while providing the other with 12 V. The HVAC control module reverses the polarity of the control circuits to move the actuator in the opposite direction.

When the actuator shaft rotates, the potentiometer’s sliding contact changes the door position signal between 0–5 V. The HVAC control module converts the voltage signal to counts. The total range of the counts is 0–1024, with an operating range between 20–1000. The actual operating range of an actuator is determined during calibration. During calibration, the actuator is moved though its full range of travel and the module stores the minimum and maximum value. Based on the desired system operation, the module sets a commanded, or targeted, value for the actuators. The control circuits are operated to move the door to the required position, and the changing position signal is sent to the module. Once the actual position signal and the commanded value are the same, the module ceases operating the control circuits and the actuator (and door) remain in the desired position.

Blower Motor

The blower motor control module is an interface between the HVAC control module and the blower motor. The blower motor speed control from the HVAC control module, battery positive and ground circuits enable the blower motor control module to operate. The HVAC control module provides a pulse width modulation (PWM) signal to the blower motor control module in order to command the blower motor speed. The blower motor control module transfers the PWM signal into a corresponding blower motor voltage.

Duct Temperature Sensors

The air temperature sensors are 2-wire negative temperature co-efficient thermistors. The sensors operate within a temperature range of −40 to +85°C (−40 to +185°F). The sensors are installed in the air distribution ducts and measure the temperature of the air that streams from the ducts. The HVAC control module uses these values to adjust the mixed air flap position according to the requested temperature.

Evaporator Temperature Sensor

The evaporator temperature sensor is a 2-wire negative temperature co-efficient thermistor. The sensor operates within a temperature range of −40 to +85°C (−40 to +185°F). The sensor is installed at the evaporator and measures its temperature. If the temperature drops under 3°C (38°F), the compressor will be switched off in order to prevent evaporator icing.

A/C Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

A/C Compressor

The A/C compressor uses a conventional belt driven magnetic clutch to engage and mechanically turn the compressor. When the A/C switch is pressed, the HVAC control module sends an A/C request message to the ECM via serial data. If specific criteria is met, the ECM then grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the permanently grounded A/C compressor clutch. The A/C compressor clutch will then be activated.

This A/C system utilizes a variable displacement solenoid valve to alter the amount of displacement created by the turning of the compressor. The HVAC control module provides both battery voltage and a pulse width modulated ground to the variable displacement solenoid valve. When the A/C switch is pressed, the HVAC control module grounds the variable displacement solenoid using a (PWM) signal in order to determine the amount of compressor displacement. The performance of the A/C compressor is regulated based on cooling load.

Ambient Light/Sunload Sensor

The sunload sensor is connected to ground and to a 12 V clocked power supply through the HVAC control module. This clocked power supply is to power the sensor electronics and to work as a clock generator to the sunload sensor micro controller. The sensor uses a pulse signal for data identification and transferring the sun intensity measurement. At each positive transition from the clocked supply input, the sunload sensor micro controller will shift channels enabling new intensity measurement on the signal output to the HVAC control module. The signal voltage varies between 0–4 V.

The passenger compartment temperature sensor is a negative temperature co-efficient thermistor. A signal and low reference circuit enables the sensor to operate. As the air temperature increases, the sensor resistance decreases. The sensor signal varies between 0–5 V.

Bright or high intensity light causes the vehicles interior temperature to increase. The HVAC system compensates for the increased temperature by diverting additional cool air into the vehicle.

Air Speed

The blower control switch is part of the HVAC controls. The selected value of the blower switch position is sent to the HVAC control module via LIN-Bus. The blower motor control circuitry is integrated within the blower motor assembly. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor translates the PWM signal and drives the motor accordingly.

Afterblow

Afterblow is a feature that dries the evaporator core by operating the blower motor after the engine is turned OFF. This reduces the amount of microbial growth that can create undesirable odors. The vehicle does not come equipped with the afterblow feature turned ON. If the afterblow feature is required due to an odor concern, it must be enabled using the scan tool Afterblow configuration function.

After the HVAC control module has been programmed for afterblow, the following conditions must be met for afterblow to operate:

- The engine has been turned OFF for at least 30 minutes.
- The ambient air temperature is at least 21°C (70°F).
- The A/C compressor operated for more than 2 minutes before shut down.
- The system voltage is at least 12 volts.

Once the above conditions have been met, the blower motor will perform the following sequence up to 5 times. This could last up to an hour:

1. The blower motor will be OFF for 7–11 minutes.
2. The blower motor will RUN for 25–30 seconds.

Air Delivery

The HVAC control module controls the distribution of air by the use of recirculation and mode door actuator. The modes that may be selected are:

- Defrost
- Defog
- Panel
- Floor

The desired air distribution mode can be selected with the air distribution switches at the HVAC control. The HVAC control delivers the values to the HVAC control module via LIN-Bus. The HVAC control module controls the mode door actuator so that it drives the flap to the calculated position. Depending on the position of the flap, air is distributed through various ducts leading to the outlets in the dash. Turning the mode flap to the defrost position, the HVAC control module will move the recirculation actuator to outside air, reducing window fogging. When defrost is selected, the blower motor will be activated, regardless of the coolant temperature. The HVAC control module enables a high volume of air delivered to the front defrost vents. A/C is available in all modes.

The rear window defogger does not affect the HVAC system.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation actuator setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting

When the A/C switch is pressed, the HVAC controls sends a signal to the HVAC control module via LIN-Bus. The HVAC control module evaluates this signal and sends an A/C request signal to the ECM via CAN-Bus. The ECM checks all preconditions before releasing and if all conditions are met sends a release signal back to the HVAC control module. The ECM will provide a ground for the A/C compressor relay enabling it to close its internal contacts to send battery voltage to the A/C compressor clutch coil. The A/C compressor clutch will be activated. The performance of the A/C compressor is regulated via a variable A/C compressor solenoid valve. The HVAC control module supplies battery voltage to the A/C compressor. When the A/C switch is pressed, the HVAC control module provides a pulse width modulation (PWM) signal to the A/C compressor solenoid valve in order to command the performance of the A/C compressor.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V
- Engine coolant temperature is less than 124°C (255°F)
- Engine speed is greater than 600 RPM
- Engine speed is less than 5,500 RPM
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI)
- Throttle position is less than 100%
- Evaporator temperature is greater than 3°C (38°F)
- ECM does not detect immoderate torque load
- ECM does not detect insufficient idle quality
- The ambient temperature is above 1°C (34°F)

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air flap to direct the airflow. If the interior temperature should be increased, the mixed air flap is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air flap is put into the position in which more air streams through the evaporator core.

Recirculation Operation

The recirculation switch is integrated into the HVAC control. The selected recirculation switch position is sent to the HVAC control module via LIN-Bus. The HVAC control module controls the air intake using the recirculation actuator. In recirculation mode the recirculation flap opens in order to circulate the air within the vehicle. In fresh air mode the recirculation flap is closed in order to route outside air into the vehicle.

Automatic Operation

In automatic operation, the HVAC control module maintains the comfort level inside of the vehicle by controlling the A/C compressor clutch, the blower motor, the air temperature actuators, mode actuator and recirculation actuator.

To put the HVAC system in automatic mode, the following is required:

1. The auto switch must be activated.
2. The air temperature switch must not be in either the full hot or full cold position.

Once the desired temperature is reached, the blower motor, mode, recirculation and temperature actuators automatically adjust to maintain the temperature selected. The HVAC control module performs the following functions to maintain the desired air temperature:

- Monitors the following sensors:
  - Ambient air temperature sensor
  - Lower left duct air temperature sensor
  - Lower right duct air temperature sensor
  - Upper left duct air temperature sensor
  - Upper right duct air temperature sensor
  - Ambient light/sunload sensor
- Regulate the blower motor speed
- Position the air temperature actuators
- Position the mode door actuator
- Position the recirculation actuator
- Request A/C operation
- Control of the A/C compressor

When the warmest position is selected in automatic operation the blower speed will increase gradually until the vehicle reaches normal operating temperature. When normal operating temperature is reached the blower stays on high speed and the air temperature actuators stays in the full heat position.

When the coldest position is selected in automatic operation the blower stays on high and the air temperature actuators stay in full cold position. The mode actuator remains in the panel position and the recirculation actuator will remain in the recirculation position.

Under cold ambient temperatures, the automatic HVAC system provides heat in the most efficient manner. The operator can select an extreme temperature setting but the system will not warm the vehicle any faster. Under warm ambient temperatures, the automatic HVAC system also provides air conditioning in the most efficient manner. Selecting an extreme cool temperature will not cool the vehicle any faster.

Engine Coolant

Engine coolant is the essential element of the heating system. The thermostat controls the normal engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation.

Coolant enters the heater core through the inlet heater hose, in a pressurized state. The heater core is located inside the HVAC control module. The ambient air drawn through the HVAC control module absorbs the heat of the coolant flowing through the heater core. Heated air is distributed to the passenger compartment, through the HVAC control module, for passenger comfort. Opening or closing the air temperature flap controls the amount of heat delivered to the passenger compartment. The coolant exits the heater core through the return heater hose and recirculates back to the engine cooling system.

A/C Cycle

Refrigerant is the key element in an air conditioning system. There are currently two approved Environmental Protection Agency refrigerants. They are R134a and R-1234yf, and either one could be used in this vehicle. R-1234yf is a newly EPA approved refrigerant, and it will require the use of an updated Air Conditioning Refrigerant Recovery/Recharge Cart/System. Refer to CELL Link Error - Link target cell (cell ID 48139) is invalid for this publication. for correct tool usage. Both refrigerants are very low temperature gases that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the A/C refrigerant pressure sensor fails or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows to the Receiver/Dehydrator(R/D).

The R/D contains desiccant that absorbs moisture that may be in the refrigerant system. The R/D also acts as a storage vessel to ensure that a steady flow of liquid reaches the thermal expansion valve. The refrigerant exits the R/D and flows through the liquid line to the thermal expansion valve.

The thermal expansion valve is located at the front of dash and attaches to the evaporator inlet and outlet pipes. The thermal expansion valve is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the thermal expansion valve, the pressure on the refrigerant is lowered. The thermal expansion valve also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the thermal expansion valve flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC control module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the A/C compressor, in a vapor state, and completing the A/C cycle of heat removal. At the A/C compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC control module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC control module as water.

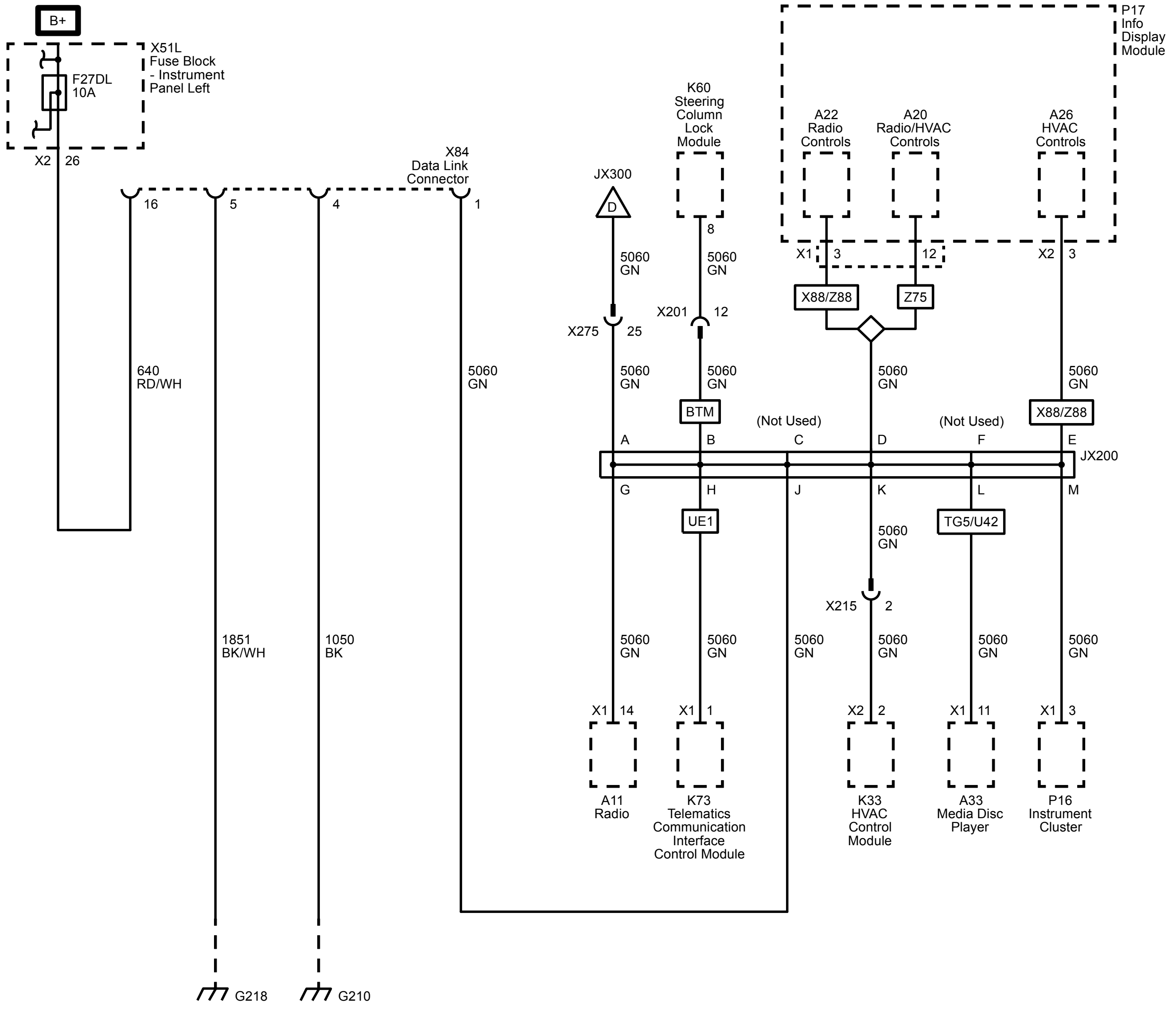
Power and Signal Distribution

Data Communications

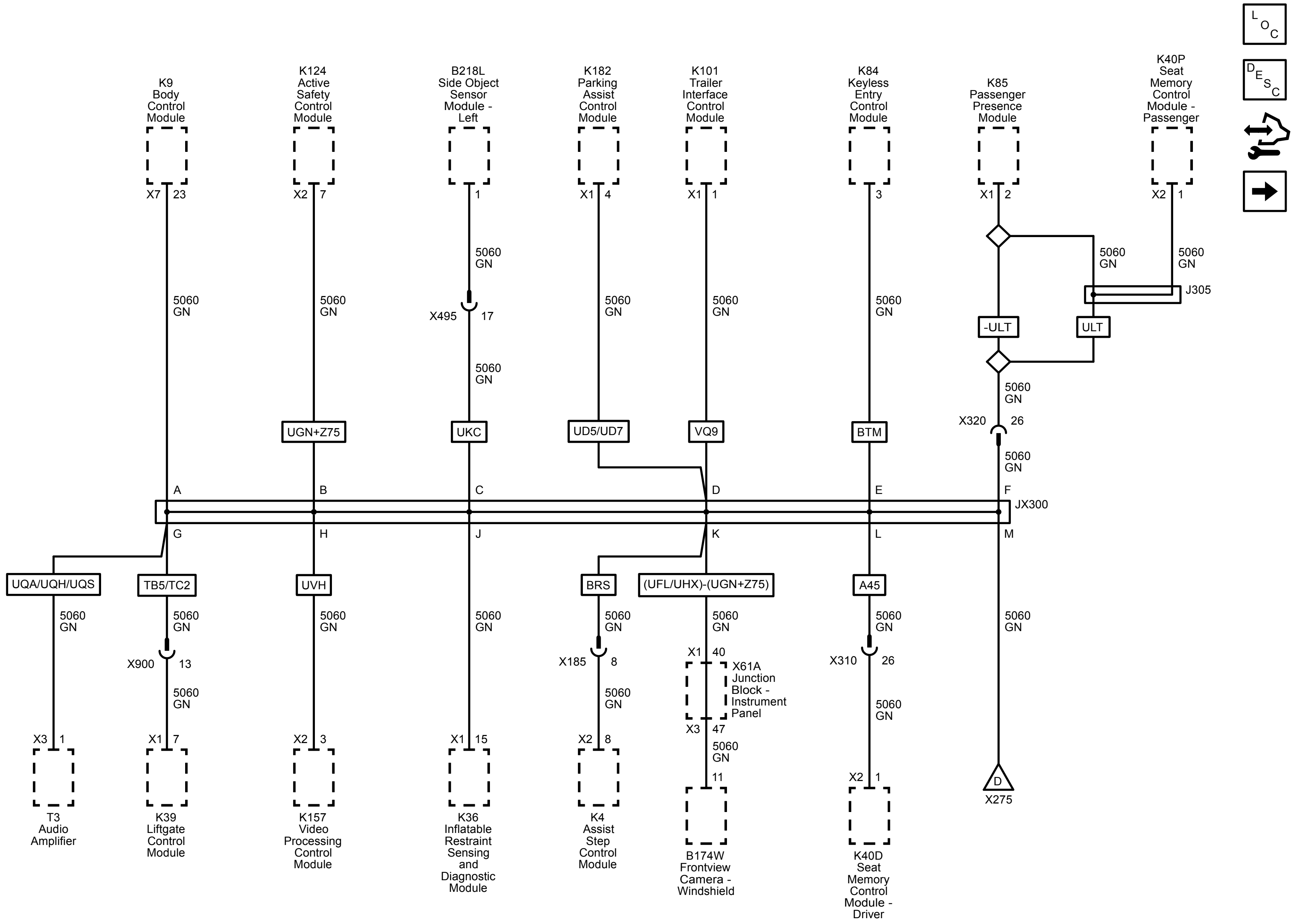
Schematic and Routing Diagrams

Data Communication Schematics

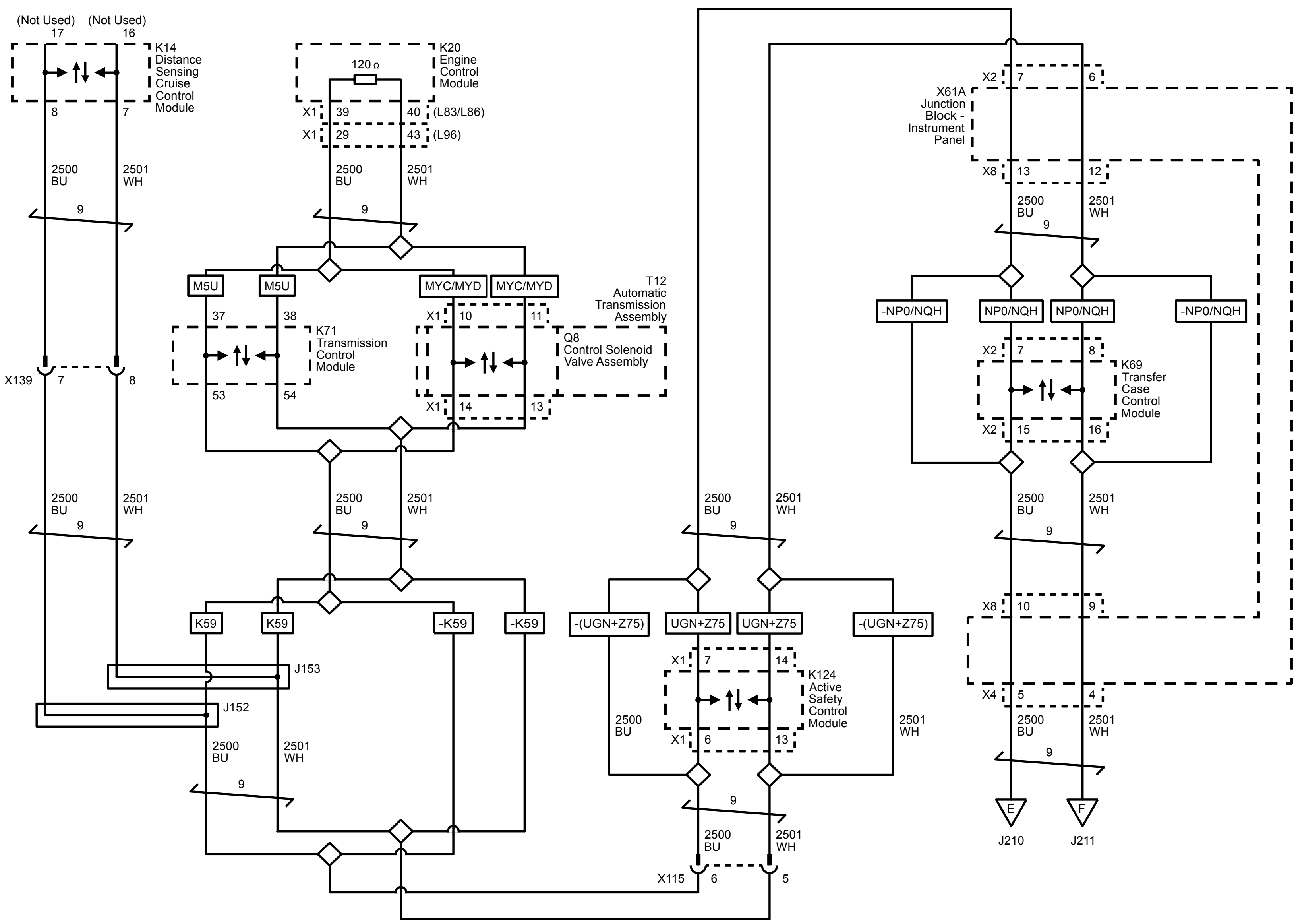
Data Link Power and Ground, and Low Speed GMLAN (1 of 2)


B+
X51L
Fuse Block
- Instrument
Panel Left
F27DL
10A
X2
26
640
RD/WH
X84
Data Link
Connector
16
5
4
1
1851
BK/WH
1050
BK
5060
GN
G218
G210
JX300
D
5060
GN
X275
25
5060
GN
K60
Steering
Column
Lock
Module
8
5060
GN
X201
12
5060
GN
BTM
P17
Info
Display
Module
A22
Radio
Controls
A20
Radio/HVAC
Controls
A26
HVAC
Controls
X1
3
12
X2
3
X88/Z88
Z75
5060
GN
5060
GN
X88/Z88
(Not Used)
(Not Used)
A
B
C
D
F
E
JX200
G
H
J
K
L
M
UE1
TG5/U42
5060
GN
X215
2
5060
GN
5060
GN
5060
GN
5060
GN
5060
GN
5060
GN
X1
14
X1
1
X2
2
X1
11
X1
3
A11
Radio
K73
Telematics
Communication
Interface
Control Module
K33
HVAC
Control
Module
A33
Media Disc
Player
P16
Instrument
Cluster

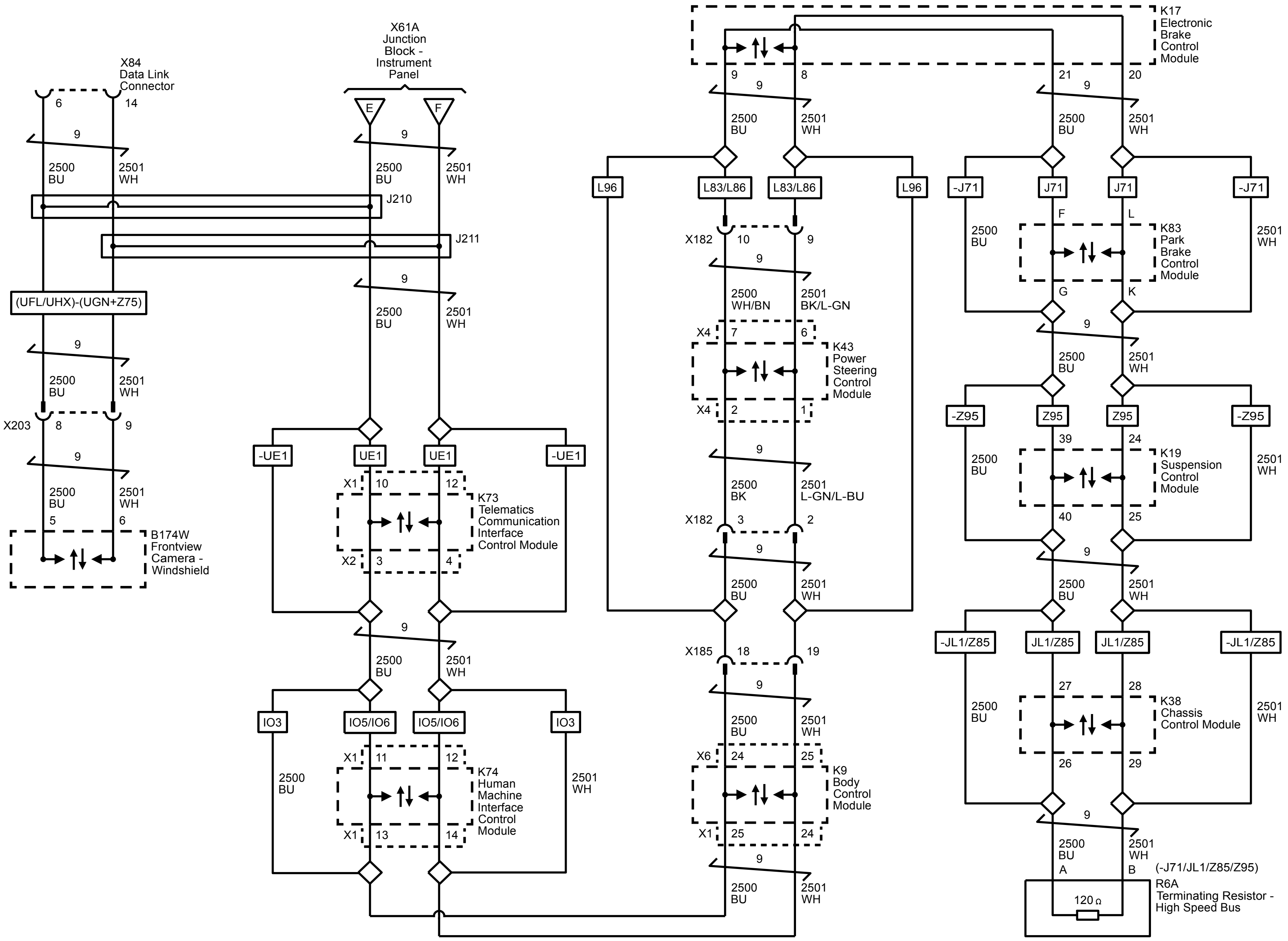
Data Link Power and Ground, and Low Speed GMLAN (2 of 2)


K9 Body Control Module
X7 23
5060 GN
K124 Active Safety Control Module
X2 7
5060 GN
UGN+Z75
B218L Side Object Sensor Module - Left
1
5060 GN
X495 17
5060 GN
UKC
K182 Parking Assist Control Module
X1 4
5060 GN
UD5/UD7
K101 Trailer Interface Control Module
X1 1
5060 GN
VQ9
K84 Keyless Entry Control Module
3
5060 GN
BTM
K85 Passenger Presence Module
X1 2
-ULT
ULT
5060 GN
X320 26
5060 GN
K40P Seat Memory Control Module - Passenger
X2 1
5060 GN
5060 GN
J305
A B C D E F
JX300
G H J K L M
UQA/UQH/UQS
5060 GN
X3 1
T3 Audio Amplifier
TB5/TC2
5060 GN
X900 13
5060 GN
X1 7
K39 Liftgate Control Module
UVH
5060 GN
X2 3
K157 Video Processing Control Module
5060 GN
X1 15
K36 Inflatable Restraint Sensing and Diagnostic Module
BRS
5060 GN
X185 8
5060 GN
X2 8
K4 Assist Step Control Module
(UFL/UHX)-(UGN+Z75)
5060 GN
X1 40
X61A Junction Block - Instrument Panel
X3 47
5060 GN
11
B174W Frontview Camera - Windshield
A45
5060 GN
X310 26
5060 GN
X2 1
K40D Seat Memory Control Module - Driver
5060 GN
D
X275
LOC
DESC

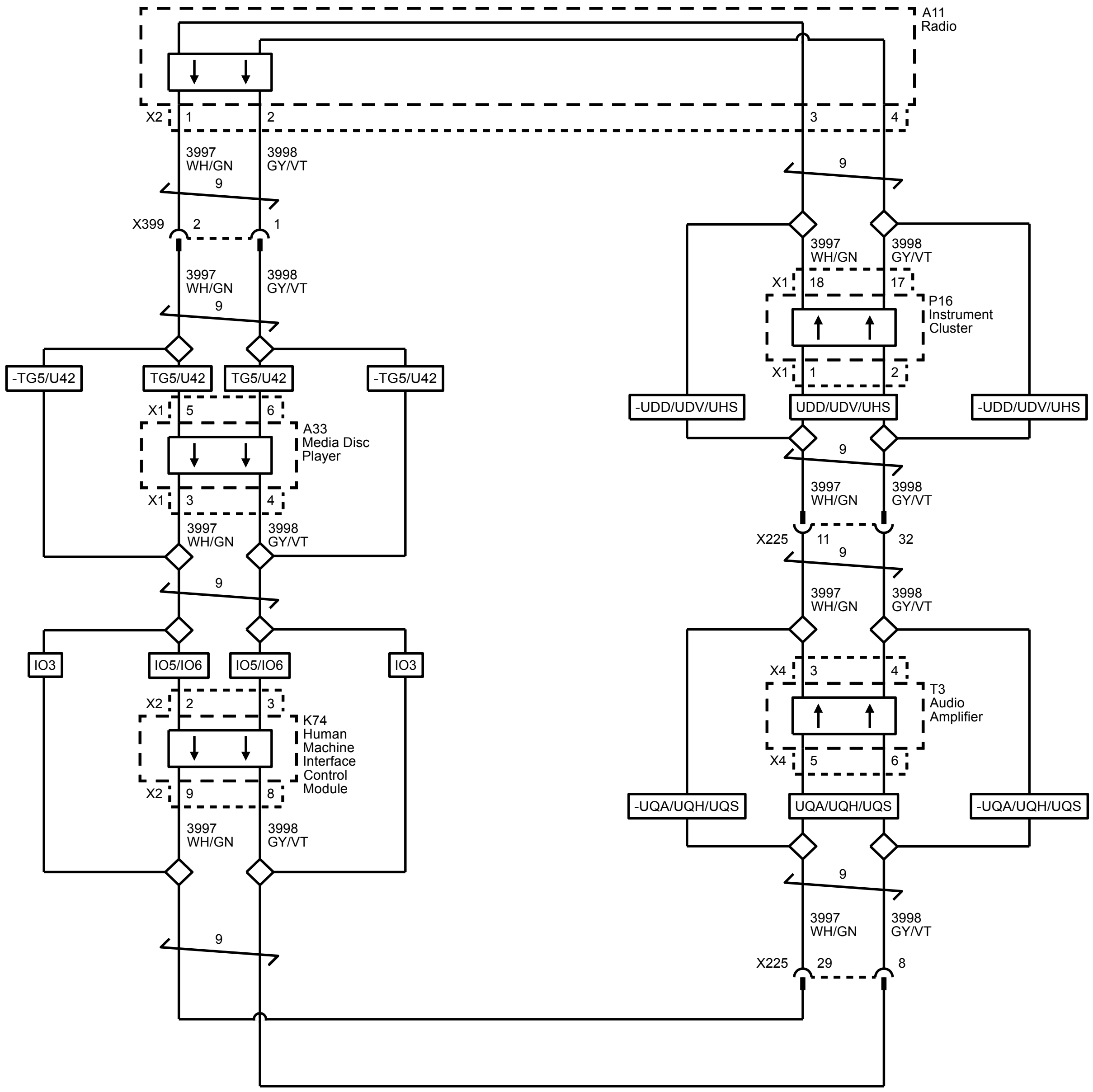
High Speed GMLAN (1 of 2)


(Not Used)
17
(Not Used)
16
K14
Distance
Sensing
Cruise
Control
Module
8
7
2500
BU
2501
WH
9
K20
Engine
Control
Module
120 Ω
X1
39
40
(L83/L86)
X1
29
43
(L96)
2500
BU
2501
WH
9
M5U
M5U
MYC/MYD
MYC/MYD
T12
Automatic
Transmission
Assembly
37
38
K71
Transmission
Control
Module
53
54
X1
10
11
Q8
Control Solenoid
Valve Assembly
X1
14
13
X139
7
8
2500
BU
2501
WH
9
2500
BU
2501
WH
9
K59
K59
-K59
-K59
J153
J152
2500
BU
2501
WH
9
X115
6
5
2500
BU
2501
WH
9
-(UGN+Z75)
UGN+Z75
UGN+Z75
-(UGN+Z75)
X1
7
14
K124
Active
Safety
Control
Module
2500
BU
2501
WH
X1
6
13
9
2500
BU
2501
WH
X2
7
6
X61A
Junction
Block -
Instrument
Panel
X8
13
12
2500
BU
2501
WH
9
-NP0/NQH
NP0/NQH
NP0/NQH
-NP0/NQH
X2
7
8
K69
Transfer
Case
Control
Module
X2
15
16
2500
BU
2501
WH
9
X8
10
9
X4
5
4
2500
BU
2501
WH
9
E
F
J210
J211

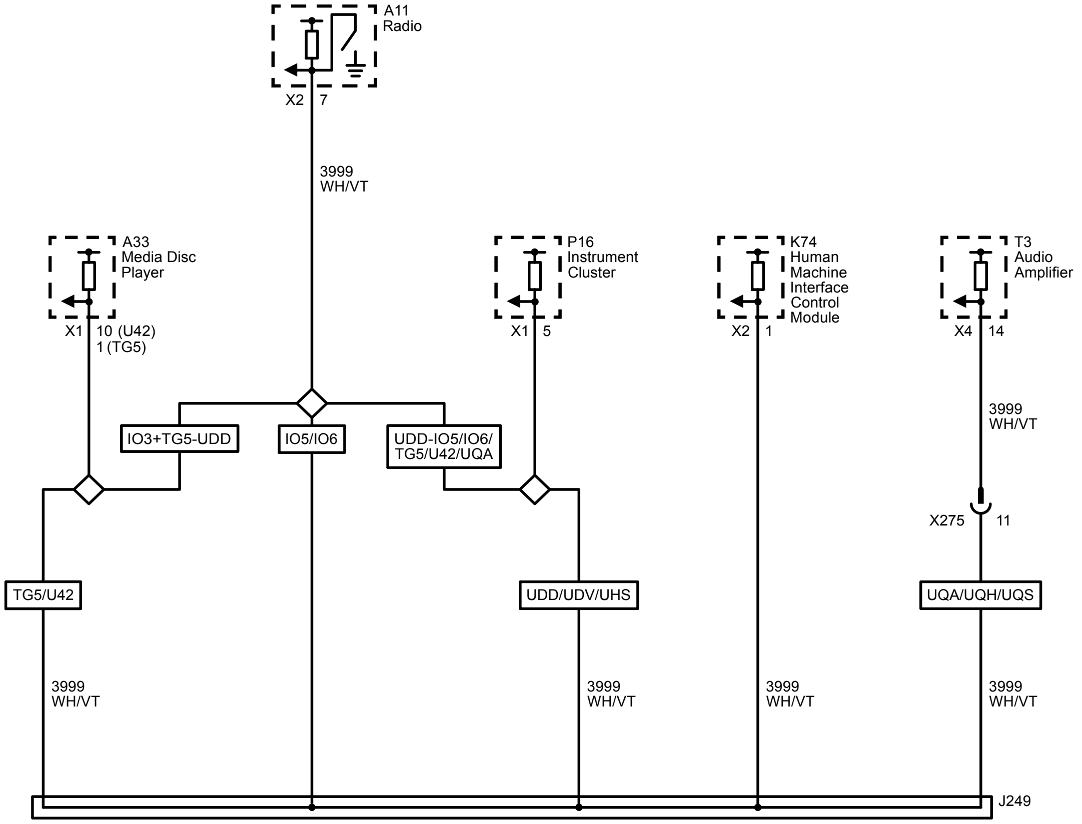
High Speed GMLAN (2 of 2)



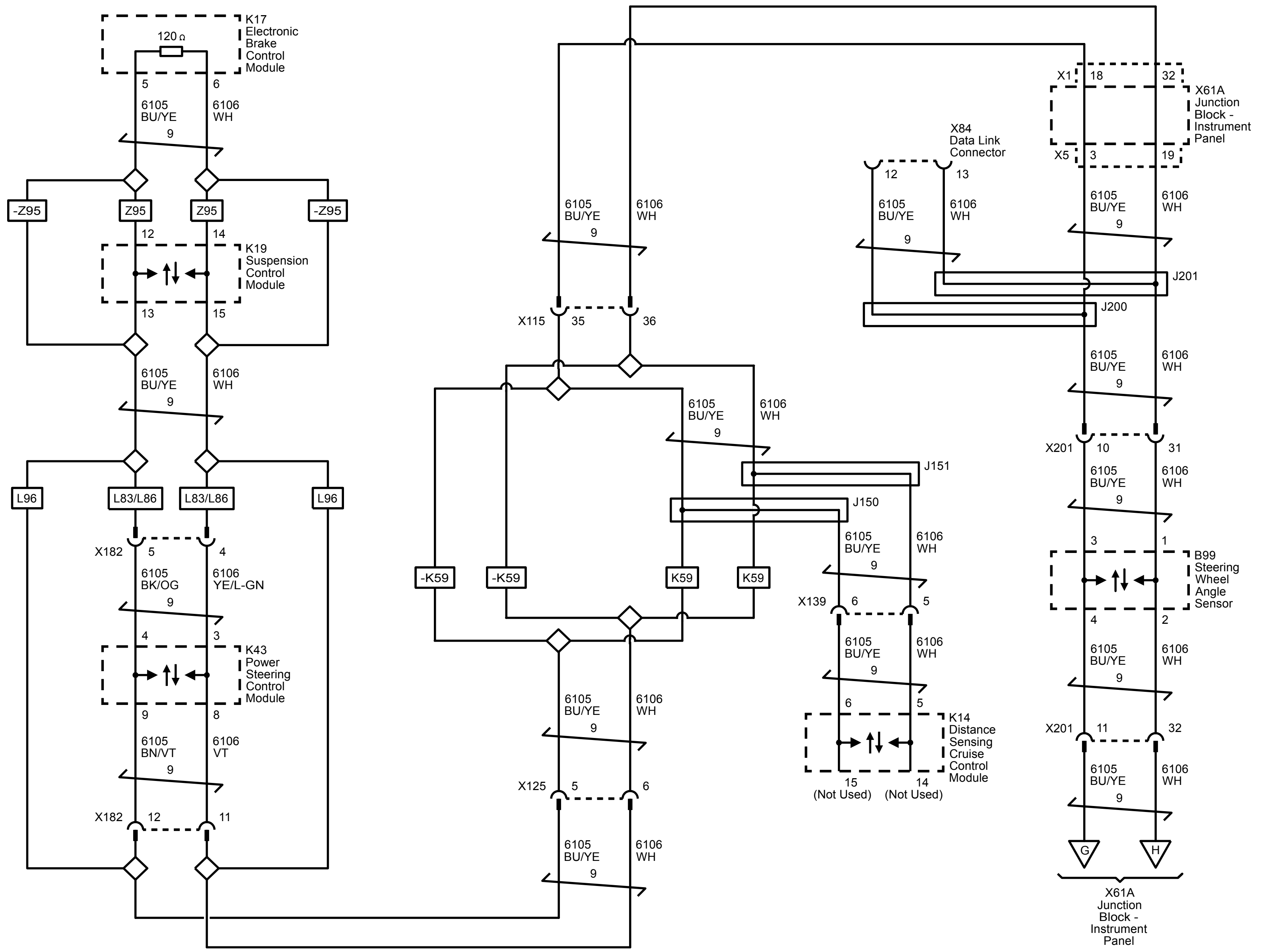
X84 Data Link Connector
6
14
9
2500 BU
2501 WH
J210
J211
(UFL/UHX)-(UGN+Z75)
X203
8
9
5
6
B174W Frontview Camera - Windshield
X61A Junction Block - Instrument Panel
E
F
-UE1
UE1
X1
10
12
K73 Telematics Communication Interface Control Module
X2
3
4
IO3
IO5/IO6
11
13
14
K74 Human Machine Interface Control Module
K17 Electronic Brake Control Module
8
L96
L83/L86
X182
2500 WH/BN
2501 BK/L-GN
X4
7
K43 Power Steering Control Module
2
1
2500 BK
2501 L-GN/L-BU
3
X185
18
19
X6
24
25
K9 Body Control Module
21
20
-J71
J71
F
L
K83 Park Brake Control Module
G
K
-Z95
Z95
39
K19 Suspension Control Module
40
-JL1/Z85
JL1/Z85
27
28
K38 Chassis Control Module
26
29
A
B
(-J71/JL1/Z85/Z95)
R6A Terminating Resistor - High Speed Bus
120 Ω


A11
Radio
X2
1
2
3
4
3997
WH/GN
3998
GY/VT
9
X399
2
1
-TG5/U42
TG5/U42
TG5/U42
-TG5/U42
X1
5
6
A33
Media Disc
Player
X1
3
4
IO3
IO5/IO6
IO5/IO6
IO3
X2
2
3
K74
Human
Machine
Interface
Control
Module
X2
9
8
X1
18
17
P16
Instrument
Cluster
X1
1
2
-UDD/UDV/UHS
UDD/UDV/UHS
-UDD/UDV/UHS
X225
11
32
X4
3
4
T3
Audio
Amplifier
X4
5
6
-UQA/UQH/UQS
UQA/UQH/UQS
-UQA/UQH/UQS
X225
29
8

MOST Bus Communications Enable

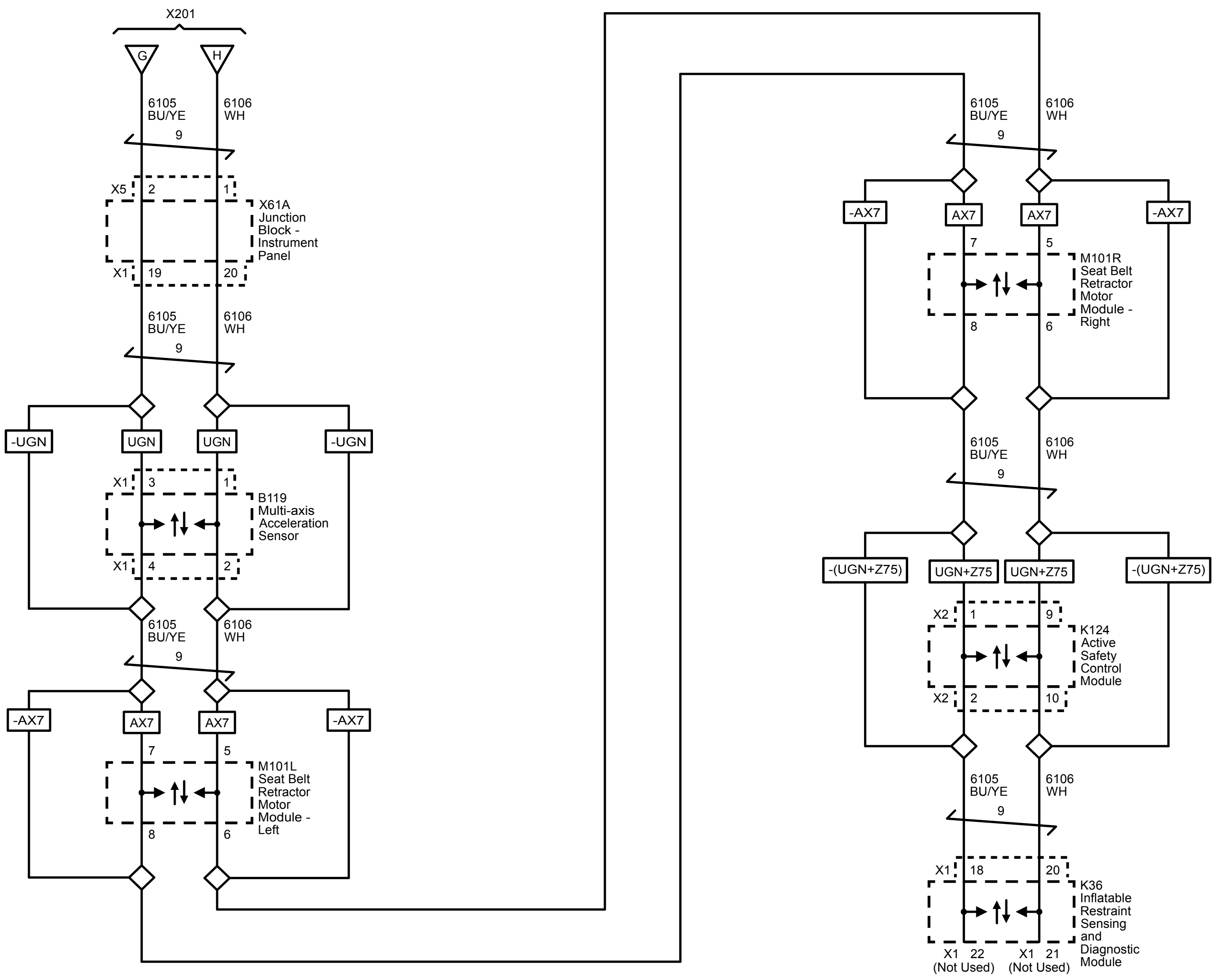

A11
Radio
X2
7
3999
WH/VT
A33
Media Disc
Player
X1
10 (U42)
1 (TG5)
P16
Instrument
Cluster
X1
5
K74
Human
Machine
Interface
Control
Module
X2
1
T3
Audio
Amplifier
X4
14
3999
WH/VT
IO3+TG5-UDD
IO5/IO6
UDD-IO5/IO6/
TG5/U42/UQA
X275
11
TG5/U42
UDD/UDV/UHS
UQA/UQH/UQS
3999
WH/VT
3999
WH/VT
3999
WH/VT
3999
WH/VT
J249

Chassis Expansion Bus (1 of 2)

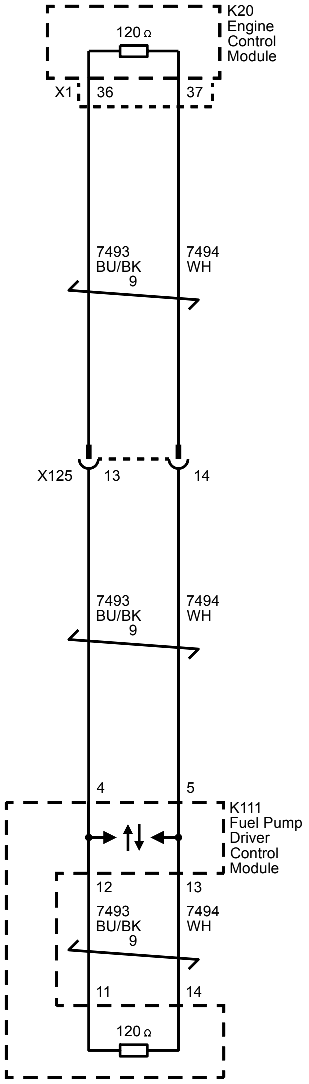


K17 Electronic Brake Control Module
120 Ω
5
6
6105 BU/YE
6106 WH
9
-Z95
Z95
Z95
-Z95
12
14
K19 Suspension Control Module
13
15
6105 BU/YE
6106 WH
9
L96
L83/L86
L83/L86
L96
X182
5
4
6105 BK/OG
6106 YE/L-GN
9
4
3
K43 Power Steering Control Module
9
8
6105 BN/VT
6106 VT
9
X182
12
11
6105 BU/YE
6106 WH
9
X115
35
36
-K59
-K59
K59
K59
6105 BU/YE
6106 WH
9
6105 BU/YE
6106 WH
9
X125
5
6
6105 BU/YE
6106 WH
9
X84 Data Link Connector
12
13
6105 BU/YE
6106 WH
9
J151
J150
6105 BU/YE
6106 WH
9
X139
6
5
6105 BU/YE
6106 WH
9
6
5
K14 Distance Sensing Cruise Control Module
15 (Not Used)
14 (Not Used)
X1
18
32
X61A Junction Block - Instrument Panel
X5
3
19
6105 BU/YE
6106 WH
9
J201
J200
6105 BU/YE
6106 WH
9
X201
10
31
6105 BU/YE
6106 WH
9
3
1
B99 Steering Wheel Angle Sensor
4
2
6105 BU/YE
6106 WH
9
X201
11
32
6105 BU/YE
6106 WH
9
G
H
X61A Junction Block - Instrument Panel

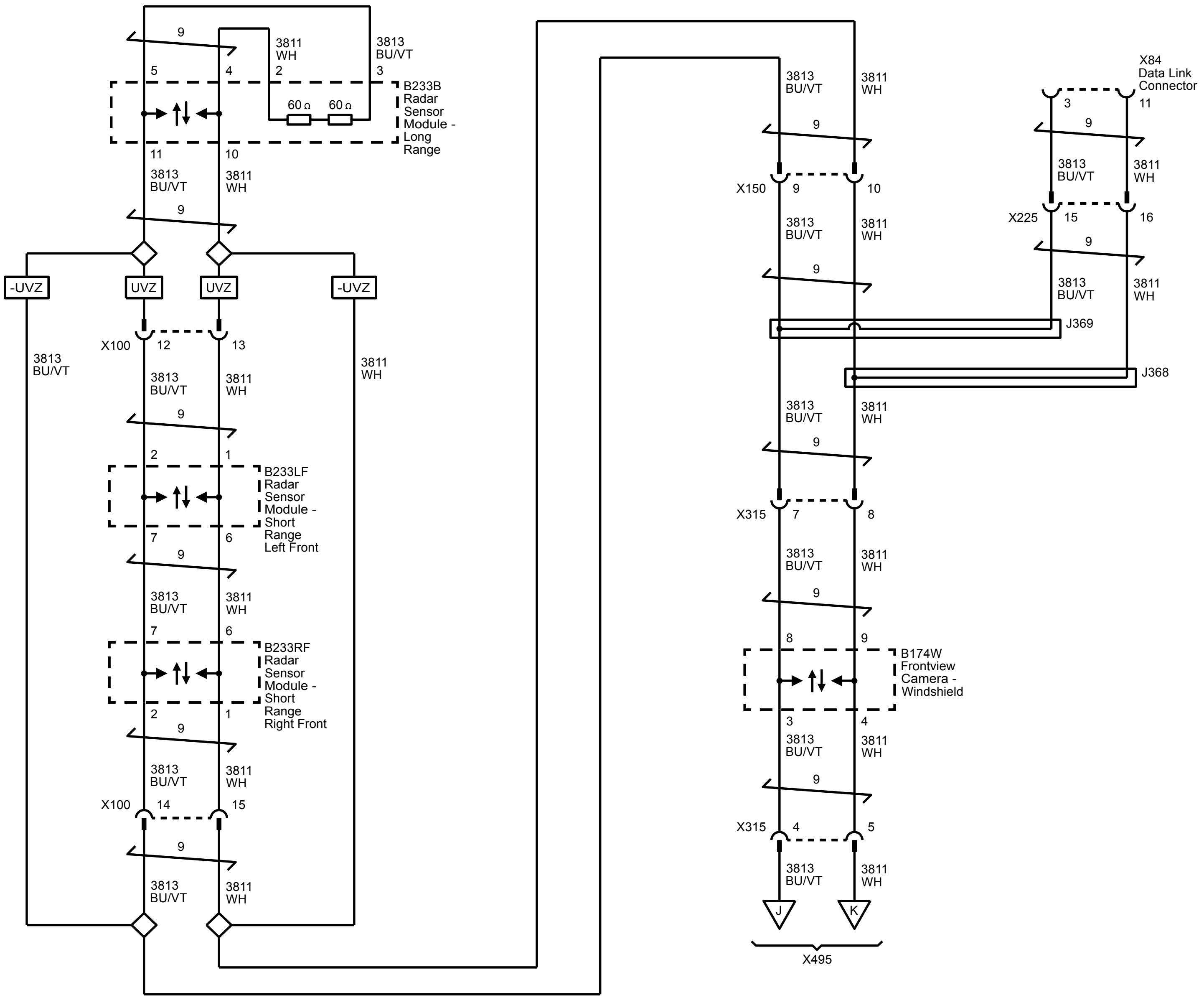
Chassis Expansion Bus (2 of 2)


X201
G
H
6105
BU/YE
6106
WH
9
X5
2
1
X61A
Junction
Block -
Instrument
Panel
X1
19
20
6105
BU/YE
6106
WH
9
-UGN
UGN
UGN
-UGN
X1
3
1
B119
Multi-axis
Acceleration
Sensor
X1
4
2
6105
BU/YE
6106
WH
9
-AX7
AX7
AX7
-AX7
7
5
M101L
Seat Belt
Retractor
Motor
Module -
Left
8
6
6105
BU/YE
6106
WH
9
-AX7
AX7
AX7
-AX7
7
5
M101R
Seat Belt
Retractor
Motor
Module -
Right
8
6
6105
BU/YE
6106
WH
9
-(UGN+Z75)
UGN+Z75
UGN+Z75
-(UGN+Z75)
X2
1
9
K124
Active
Safety
Control
Module
X2
2
10
6105
BU/YE
6106
WH
9
X1
18
20
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
X1
22
(Not Used)
X1
21
(Not Used)

Powertrain Expansion Bus (L83 or L86)


K20
Engine
Control
Module
120 Ω
X1
36
37
7493
BU/BK
9
7494
WH
X125
13
14
7493
BU/BK
9
7494
WH
4
5
K111
Fuel Pump
Driver
Control
Module
12
13
7493
BU/BK
9
7494
WH
11
14
120 Ω

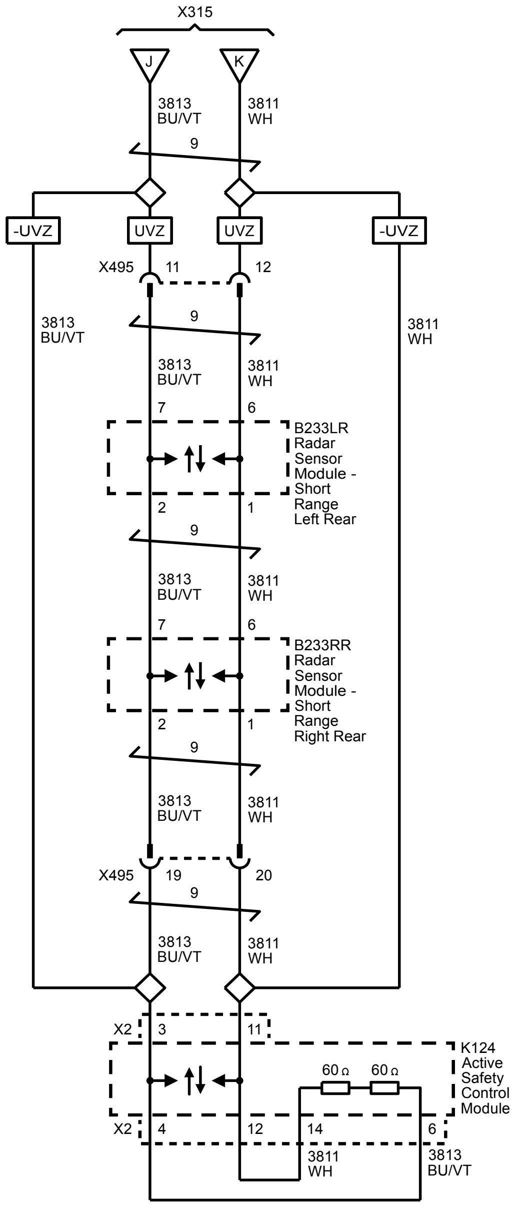
Object Detection Bus (UGN+Z75) (1 of 2)



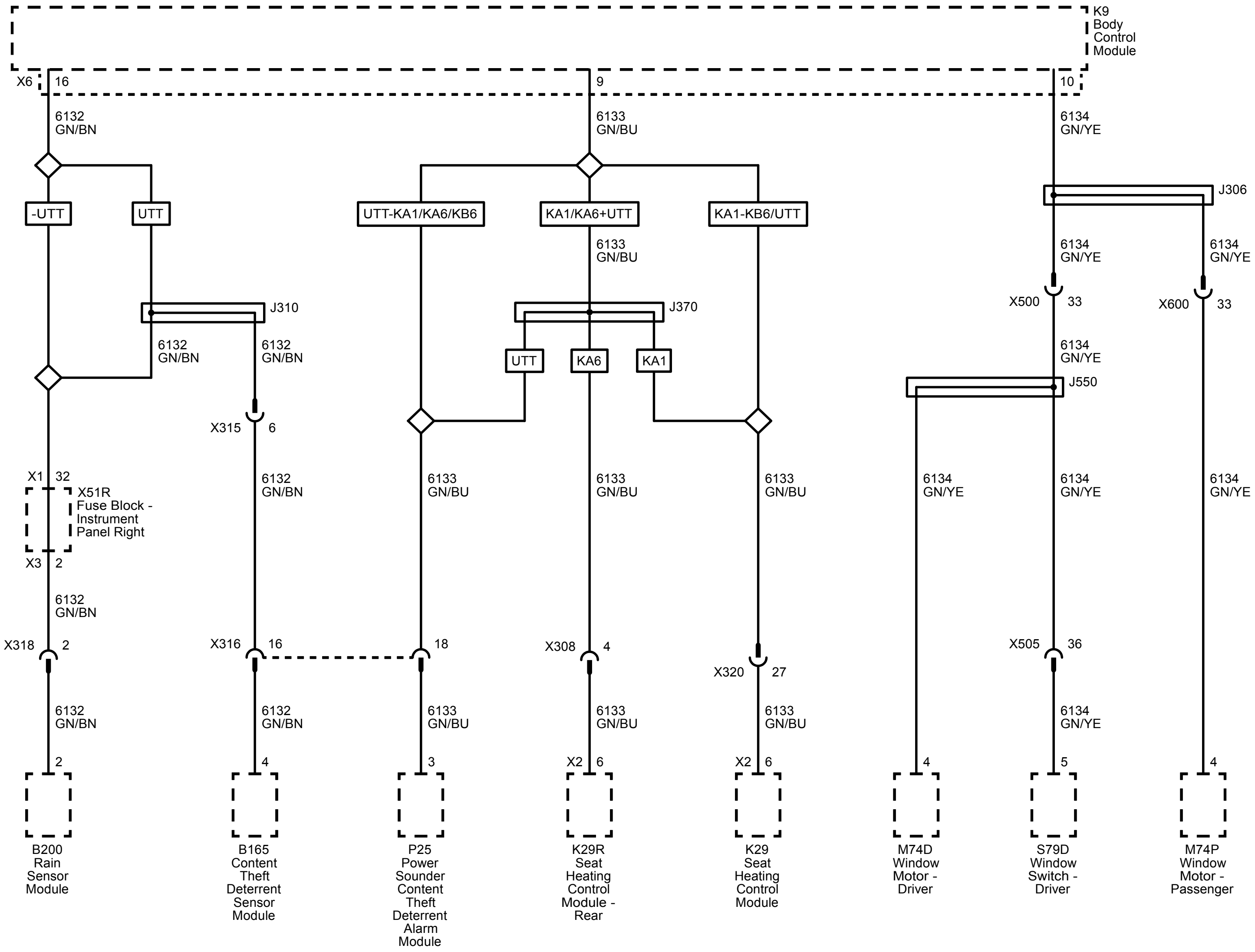
9
3811 WH
3813 BU/VT
5
4
2
3
60 Ω
60 Ω
B233B Radar Sensor Module - Long Range
11
10
3813 BU/VT
3811 WH
9
-UVZ
UVZ
UVZ
-UVZ
X100
12
13
3813 BU/VT
3811 WH
3813 BU/VT
3811 WH
9
2
1
B233LF Radar Sensor Module - Short Range Left Front
7
6
9
3813 BU/VT
3811 WH
7
6
B233RF Radar Sensor Module - Short Range Right Front
2
1
9
3813 BU/VT
3811 WH
X100
14
15
9
3813 BU/VT
3811 WH
3813 BU/VT
3811 WH
9
X150
9
10
3813 BU/VT
3811 WH
9
X84 Data Link Connector
3
11
9
3813 BU/VT
3811 WH
X225
15
16
9
3813 BU/VT
3811 WH
J369
J368
3813 BU/VT
3811 WH
9
X315
7
8
3813 BU/VT
3811 WH
9
8
9
B174W Frontview Camera - Windshield
3
4
3813 BU/VT
3811 WH
9
X315
4
5
3813 BU/VT
3811 WH
J
K
X495

]

Object Detection Bus (UGN+Z75) (2 of 2)

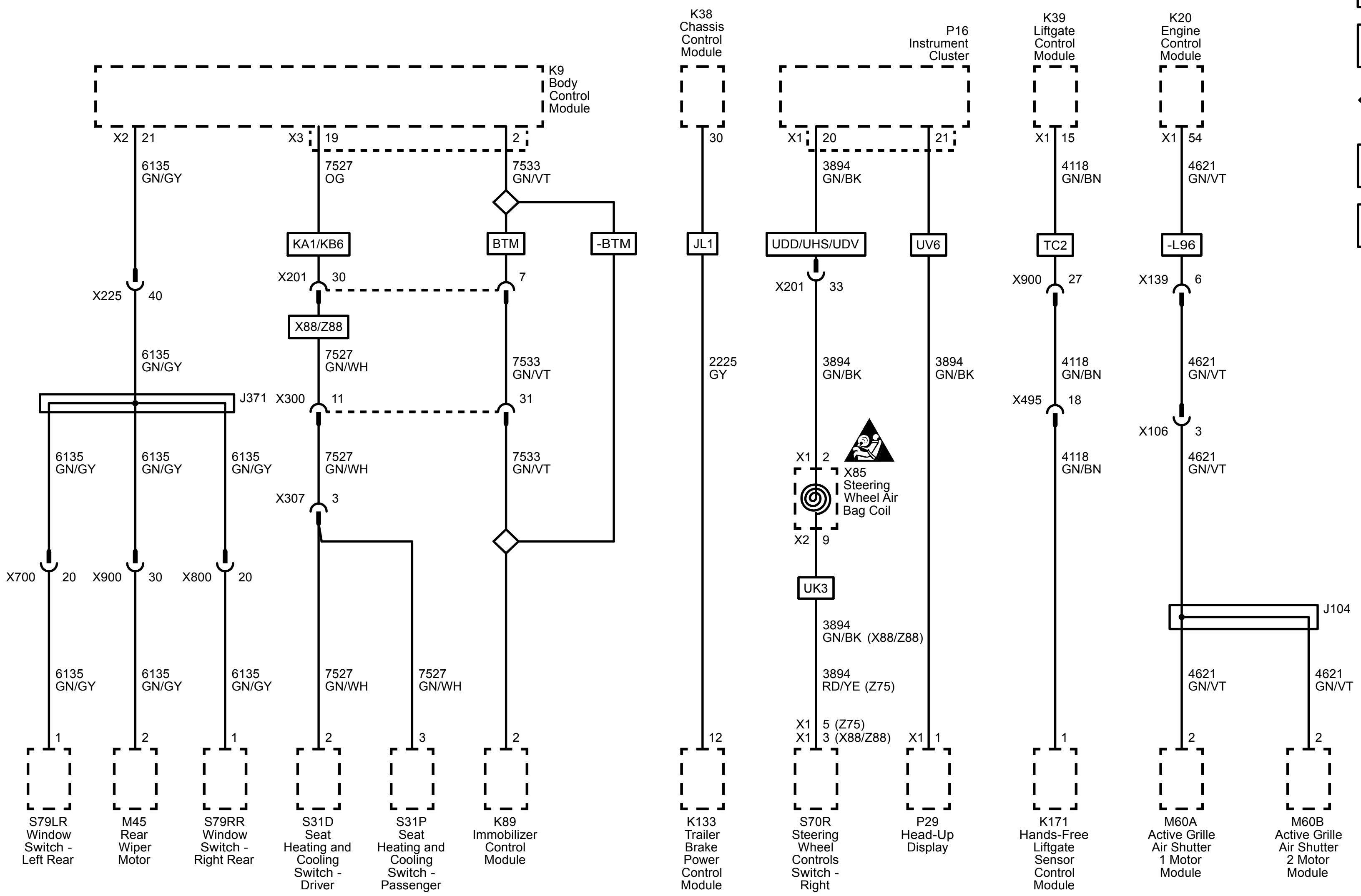

X315
J
K
3813
BU/VT
3811
WH
9
-UVZ
UVZ
UVZ
-UVZ
X495
11
12
3813
BU/VT
3811
WH
7
6
B233LR
Radar
Sensor
Module -
Short
Range
Left Rear
2
1
B233RR
Radar
Sensor
Module -
Short
Range
Right Rear
X495
19
20
X2
3
11
K124
Active
Safety
Control
Module
60 Ω
60 Ω
X2
4
12
14
6
3811
WH
3813
BU/VT

Linear Interconnect Network (LIN) Busses (1 of 3)

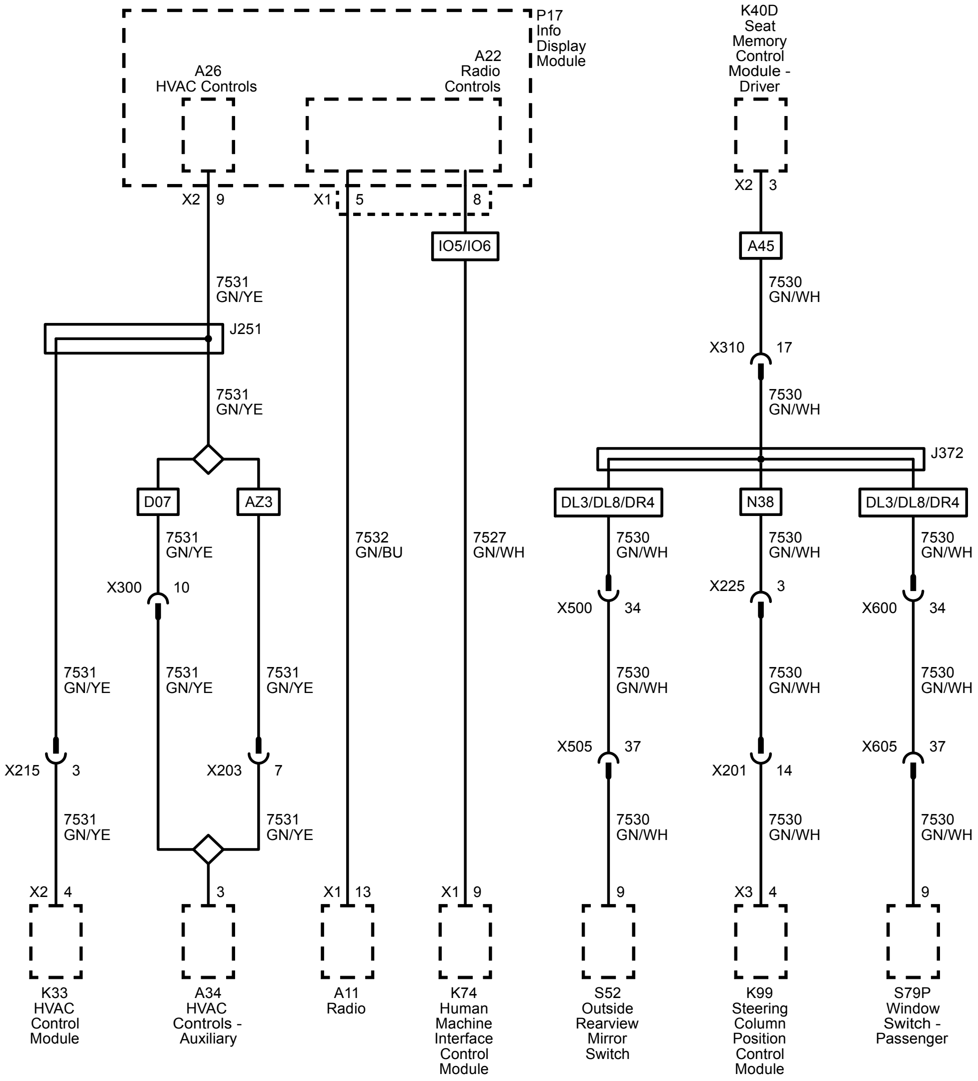


K9
Body
Control
Module
X6
16
9
10
6132
GN/BN
6133
GN/BU
6134
GN/YE
-UTT
UTT
UTT-KA1/KA6/KB6
KA1/KA6+UTT
KA1-KB6/UTT
J306
6133
GN/BU
6134
GN/YE
6134
GN/YE
J310
J370
X500
33
X600
33
6132
GN/BN
6132
GN/BN
UTT
KA6
KA1
6134
GN/YE
J550
X315
6
X1
32
X51R
Fuse Block -
Instrument
Panel Right
6132
GN/BN
6133
GN/BU
6133
GN/BU
6133
GN/BU
6134
GN/YE
6134
GN/YE
6134
GN/YE
X3
2
6132
GN/BN
X318
2
X316
16
18
X308
4
X320
27
X505
36
6132
GN/BN
6132
GN/BN
6133
GN/BU
6133
GN/BU
6133
GN/BU
6134
GN/YE
2
4
3
X2
6
X2
6
4
5
4
B200
Rain
Sensor
Module
B165
Content
Theft
Deterrent
Sensor
Module
P25
Power
Sounder
Content
Theft
Deterrent
Alarm
Module
K29R
Seat
Heating
Control
Module -
Rear
K29
Seat
Heating
Control
Module
M74D
Window
Motor -
Driver
S79D
Window
Switch -
Driver
M74P
Window
Motor -
Passenger

Linear Interconnect Network (LIN) Busses (2 of 3)

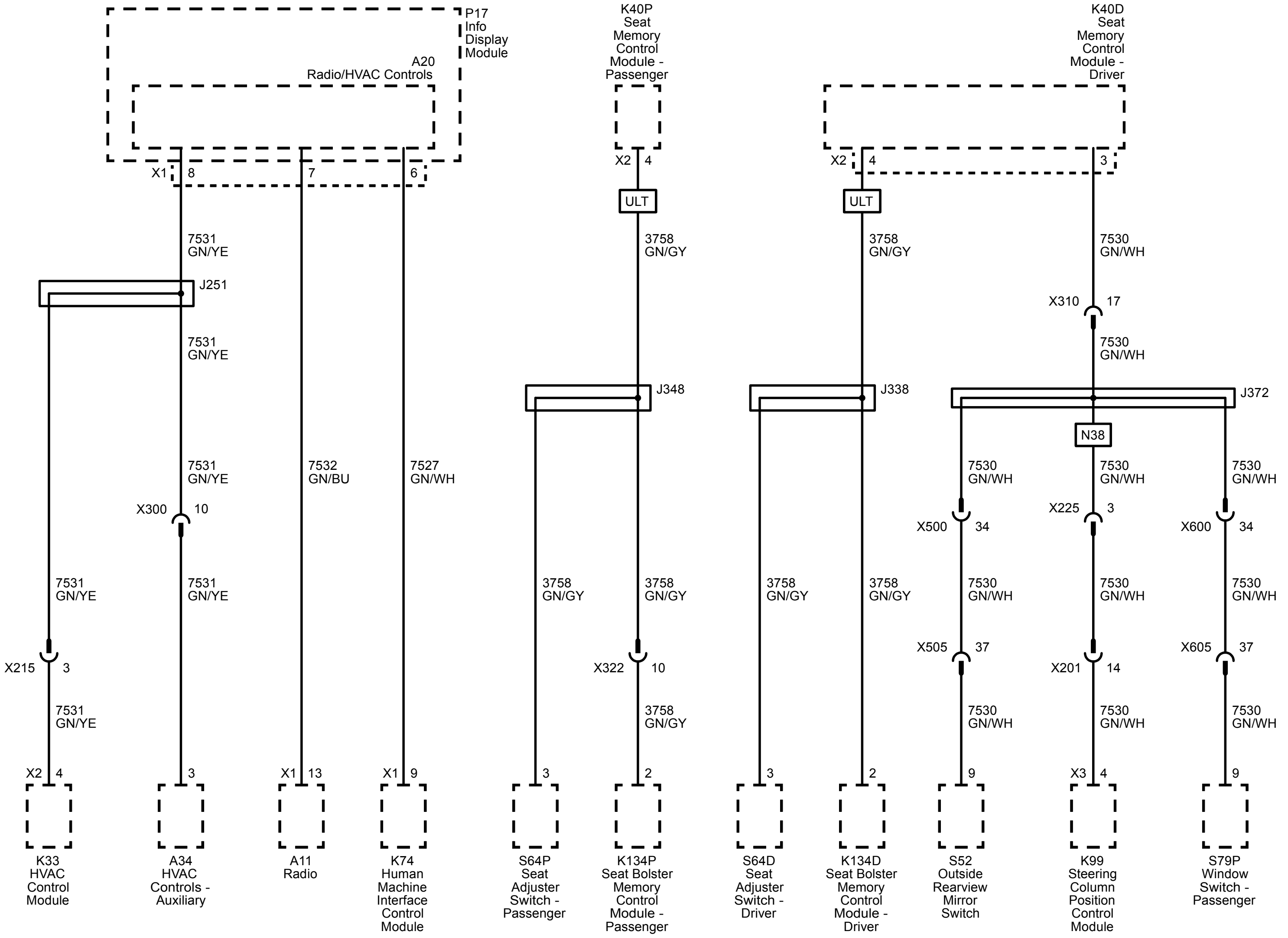

K9
Body
Control
Module
X2 21
6135
GN/GY
X225 40
6135
GN/GY
J371
6135
GN/GY
6135
GN/GY
6135
GN/GY
X700 20
X900 30
X800 20
6135
GN/GY
6135
GN/GY
6135
GN/GY
1
2
1
S79LR
Window
Switch -
Left Rear
M45
Rear
Wiper
Motor
S79RR
Window
Switch -
Right Rear
X3 19
7527
OG
KA1/KB6
X201 30
X88/Z88
7527
GN/WH
X300 11
7527
GN/WH
X307 3
7527
GN/WH
7527
GN/WH
2
3
S31D
Seat
Heating and
Cooling
Switch -
Driver
S31P
Seat
Heating and
Cooling
Switch -
Passenger
2
7533
GN/VT
BTM
-BTM
7
7533
GN/VT
31
7533
GN/VT
2
K89
Immobilizer
Control
Module
K38
Chassis
Control
Module
30
JL1
2225
GY
12
K133
Trailer
Brake
Power
Control
Module
P16
Instrument
Cluster
X1 20
3894
GN/BK
UDD/UHS/UDV
X201 33
3894
GN/BK
X1 2
X85
Steering
Wheel Air
Bag Coil
X2 9
UK3
3894
GN/BK (X88/Z88)
3894
RD/YE (Z75)
X1 5 (Z75)
X1 3 (X88/Z88)
S70R
Steering
Wheel
Controls
Switch -
Right
21
UV6
3894
GN/BK
X1 1
P29
Head-Up
Display
K39
Liftgate
Control
Module
X1 15
4118
GN/BN
TC2
X900 27
4118
GN/BN
X495 18
4118
GN/BN
1
K171
Hands-Free
Liftgate
Sensor
Control
Module
K20
Engine
Control
Module
X1 54
4621
GN/VT
-L96
X139 6
4621
GN/VT
X106 3
4621
GN/VT
J104
4621
GN/VT
4621
GN/VT
2
2
M60A
Active Grille
Air Shutter
1 Motor
Module
M60B
Active Grille
Air Shutter
2 Motor
Module

Linear Interconnect Network (LIN) Busses (3 of 3) (X88 or Z88)

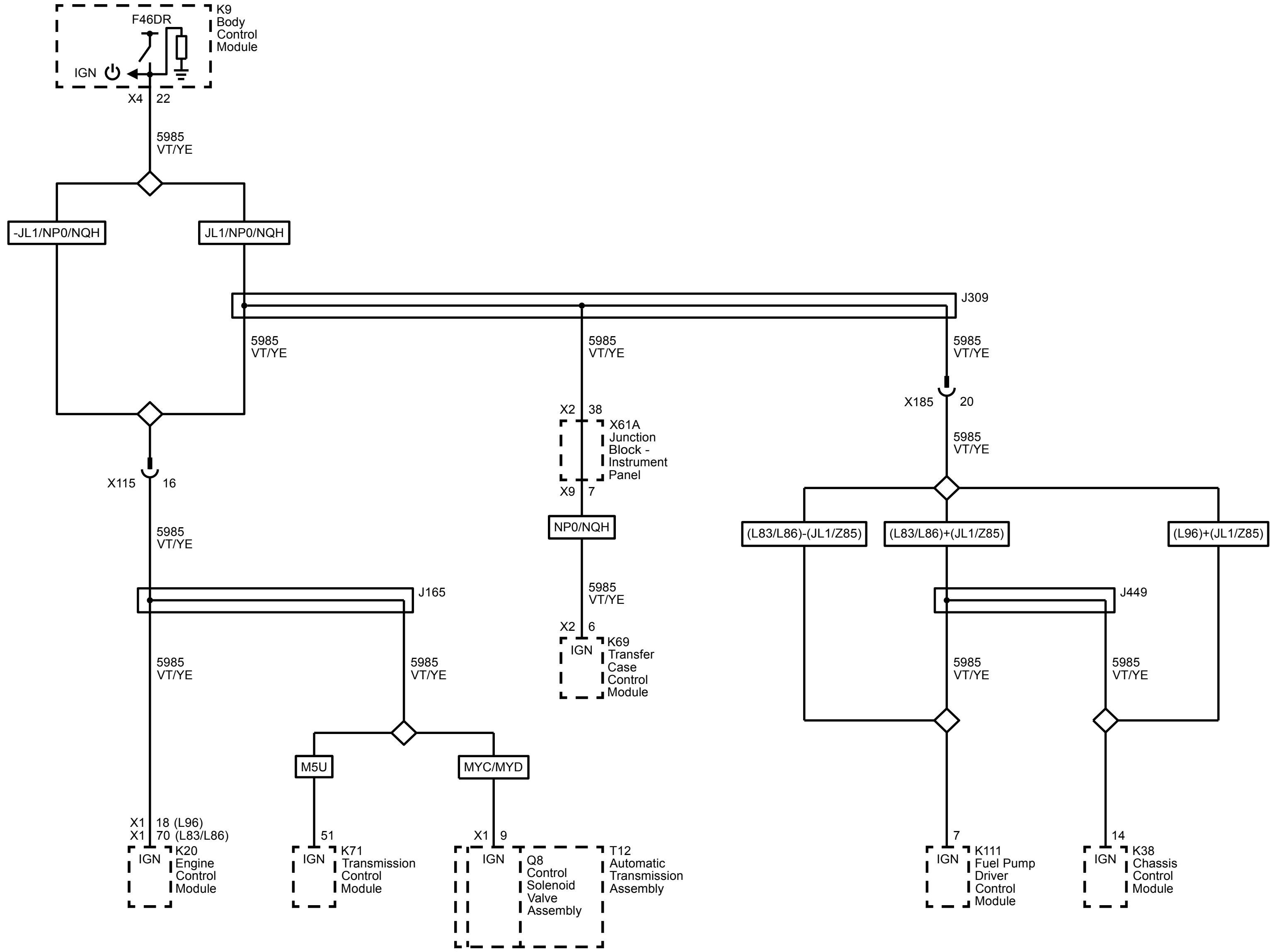

P17
Info
Display
Module
A26
HVAC Controls
A22
Radio
Controls
K40D
Seat
Memory
Control
Module -
Driver
X2 9
X1 5
8
X2 3
IO5/IO6
A45
7531
GN/YE
J251
7530
GN/WH
X310 17
7530
GN/WH
J372
7531
GN/YE
D07
AZ3
DL3/DL8/DR4
N38
DL3/DL8/DR4
7531
GN/YE
7532
GN/BU
7527
GN/WH
7530
GN/WH
7530
GN/WH
7530
GN/WH
X300 10
X500 34
X225 3
X600 34
7531
GN/YE
7531
GN/YE
7531
GN/YE
7530
GN/WH
7530
GN/WH
7530
GN/WH
X215 3
X203 7
X505 37
X201 14
X605 37
7531
GN/YE
7531
GN/YE
7530
GN/WH
7530
GN/WH
7530
GN/WH
X2 4
3
X1 13
X1 9
9
X3 4
9
K33
HVAC
Control
Module
A34
HVAC
Controls -
Auxiliary
A11
Radio
K74
Human
Machine
Interface
Control
Module
S52
Outside
Rearview
Mirror
Switch
K99
Steering
Column
Position
Control
Module
S79P
Window
Switch -
Passenger

LOC
DESC

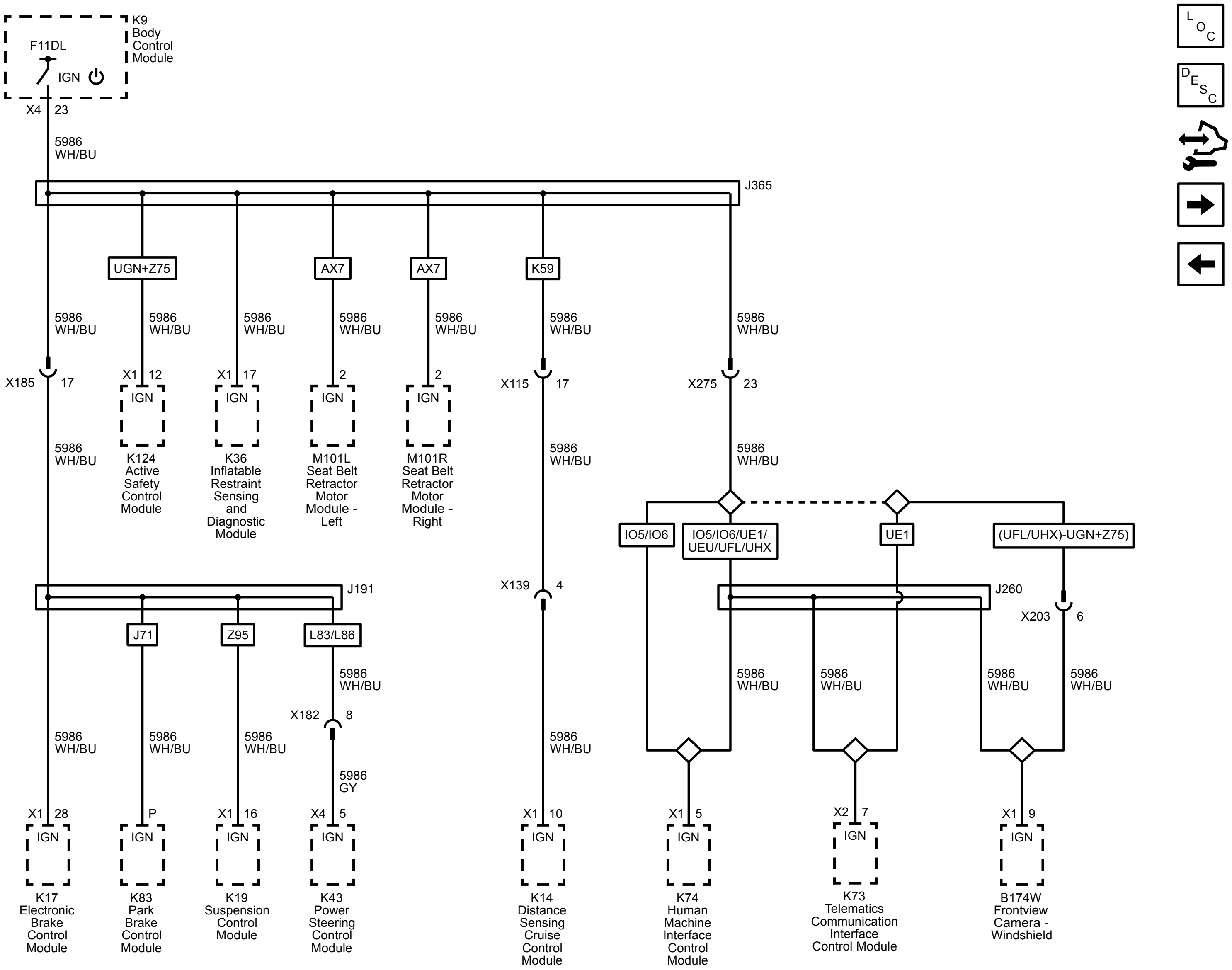
Linear Interconnect Network (LIN) Busses (3 of 3) (Z75)


P17 Info Display Module
A20 Radio/HVAC Controls
X1 8
7
6
7531 GN/YE
J251
7531 GN/YE
7531 GN/YE
X300 10
7531 GN/YE
7531 GN/YE
X215 3
7531 GN/YE
7532 GN/BU
7527 GN/WH
X2 4
3
X1 13
X1 9
K33 HVAC Control Module
A34 HVAC Controls - Auxiliary
A11 Radio
K74 Human Machine Interface Control Module
K40P Seat Memory Control Module - Passenger
X2 4
ULT
3758 GN/GY
J348
3758 GN/GY
3758 GN/GY
X322 10
3758 GN/GY
3
2
S64P Seat Adjuster Switch - Passenger
K134P Seat Bolster Memory Control Module - Passenger
K40D Seat Memory Control Module - Driver
X2 4
ULT
3758 GN/GY
J338
3758 GN/GY
3758 GN/GY
3
2
S64D Seat Adjuster Switch - Driver
K134D Seat Bolster Memory Control Module - Driver
3
7530 GN/WH
X310 17
7530 GN/WH
J372
N38
7530 GN/WH
7530 GN/WH
7530 GN/WH
X500 34
X225 3
X600 34
7530 GN/WH
7530 GN/WH
7530 GN/WH
X505 37
X201 14
X605 37
7530 GN/WH
7530 GN/WH
7530 GN/WH
9
X3 4
9
S52 Outside Rearview Mirror Switch
K99 Steering Column Position Control Module
S79P Window Switch - Passenger

Accessory Wakeup

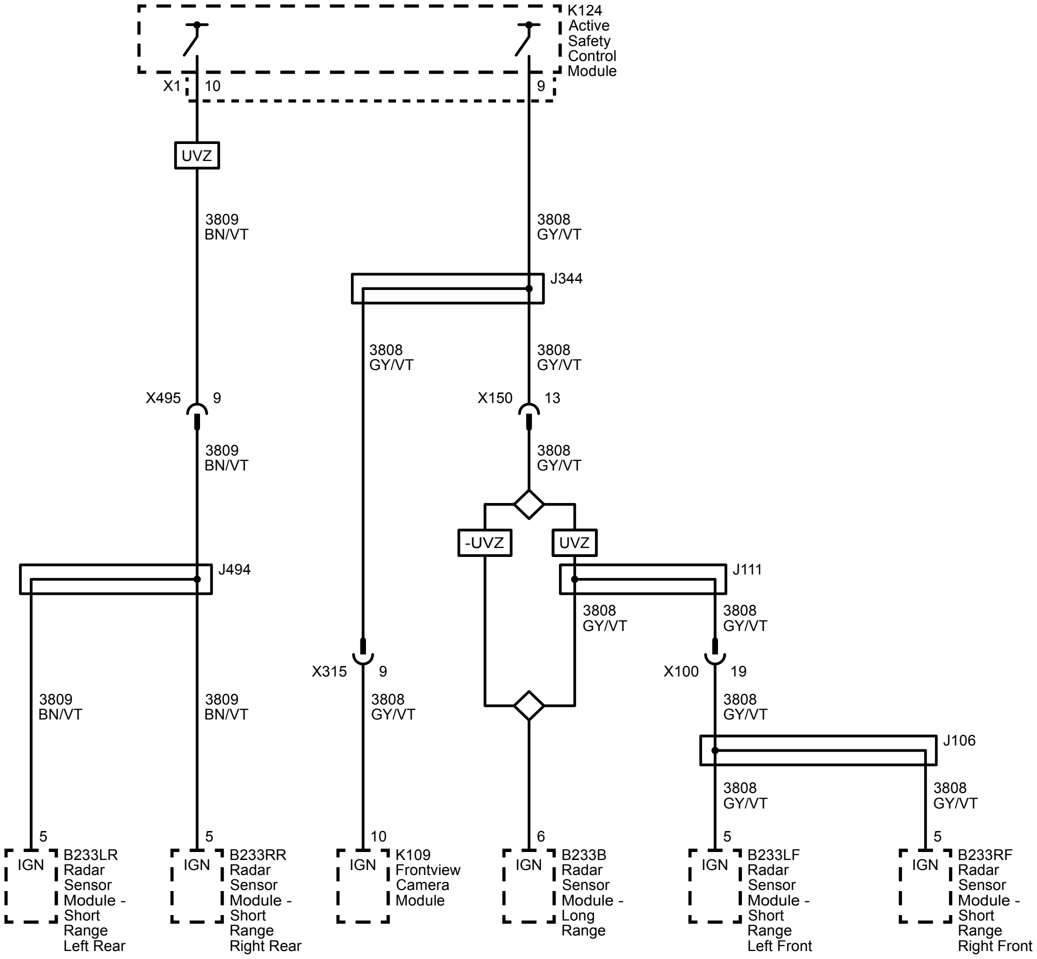

K9
Body
Control
Module
F46DR
IGN
X4 22
5985
VT/YE
-JL1/NP0/NQH
JL1/NP0/NQH
J309
5985
VT/YE
5985
VT/YE
5985
VT/YE
X185 20
5985
VT/YE
X115 16
5985
VT/YE
X2 38
X61A
Junction
Block -
Instrument
Panel
X9 7
NP0/NQH
5985
VT/YE
X2 6
IGN
K69
Transfer
Case
Control
Module
(L83/L86)-(JL1/Z85)
(L83/L86)+(JL1/Z85)
(L96)+(JL1/Z85)
J449
5985
VT/YE
5985
VT/YE
J165
5985
VT/YE
5985
VT/YE
M5U
MYC/MYD
X1 18 (L96)
X1 70 (L83/L86)
IGN
K20
Engine
Control
Module
51
IGN
K71
Transmission
Control
Module
X1 9
IGN
Q8
Control
Solenoid
Valve
Assembly
T12
Automatic
Transmission
Assembly
7
IGN
K111
Fuel Pump
Driver
Control
Module
14
IGN
K38
Chassis
Control
Module

Communications Enable

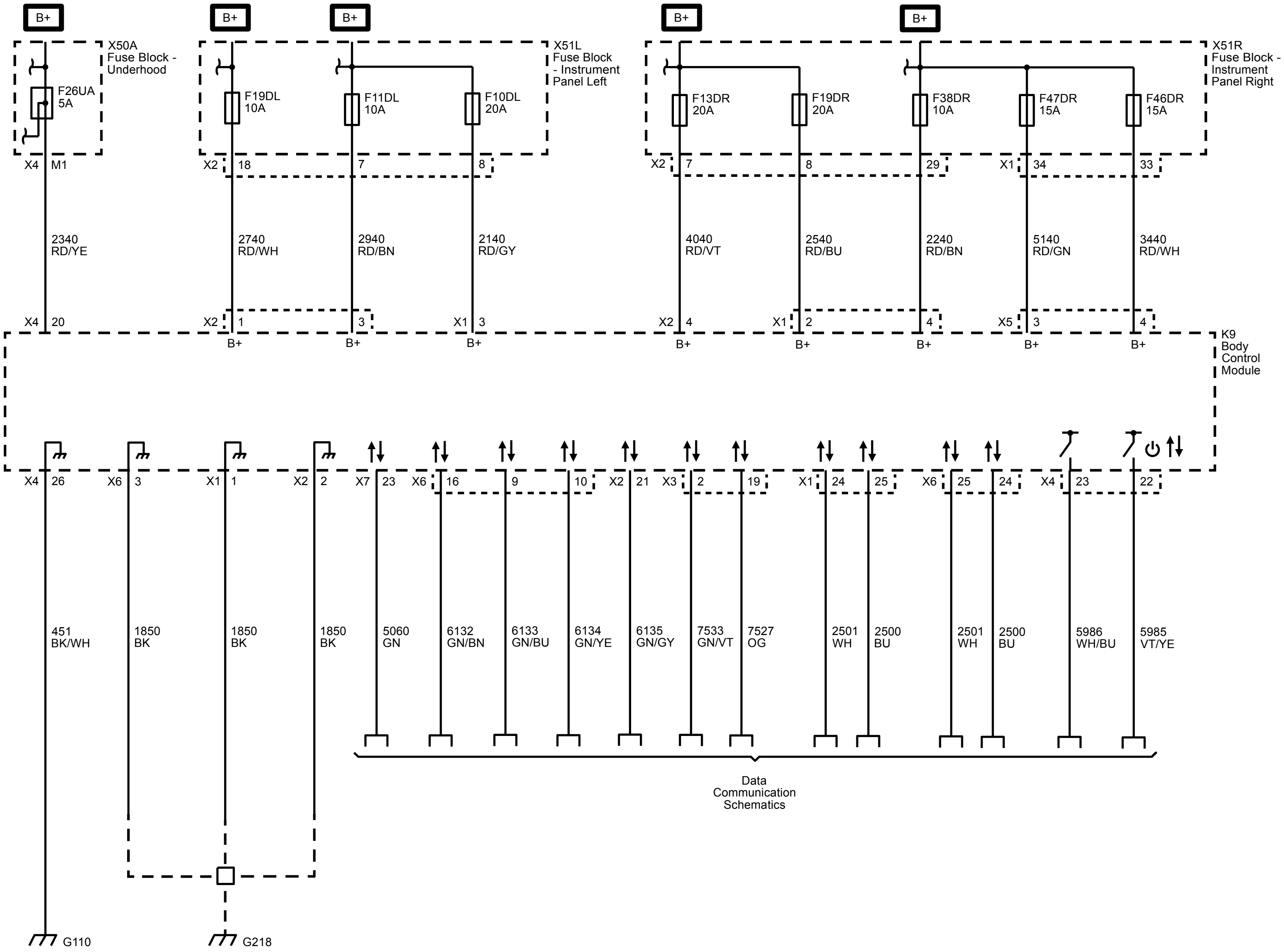


K9
Body
Control
Module
F11DL
IGN
X4 23
5986
WH/BU
J365
UGN+Z75
AX7
AX7
K59
X185 17
X1 12
IGN
K124
Active
Safety
Control
Module
X1 17
IGN
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
2
IGN
M101L
Seat Belt
Retractor
Motor
Module -
Left
2
IGN
M101R
Seat Belt
Retractor
Motor
Module -
Right
X115 17
X275 23
IO5/IO6
IO5/IO6/UE1/
UEU/UFL/UHX
UE1
(UFL/UHX)-UGN+Z75)
J191
J71
Z95
L83/L86
X182 8
5986
GY
X139 4
J260
X203 6
X1 28
IGN
K17
Electronic
Brake
Control
Module
P
IGN
K83
Park
Brake
Control
Module
X1 16
IGN
K19
Suspension
Control
Module
X4 5
IGN
K43
Power
Steering
Control
Module
X1 10
IGN
K14
Distance
Sensing
Cruise
Control
Module
X1 5
IGN
K74
Human
Machine
Interface
Control
Module
X2 7
IGN
K73
Telematics
Communication
Interface
Control Module
X1 9
IGN
B174W
Frontview
Camera -
Windshield
LOC
DESC

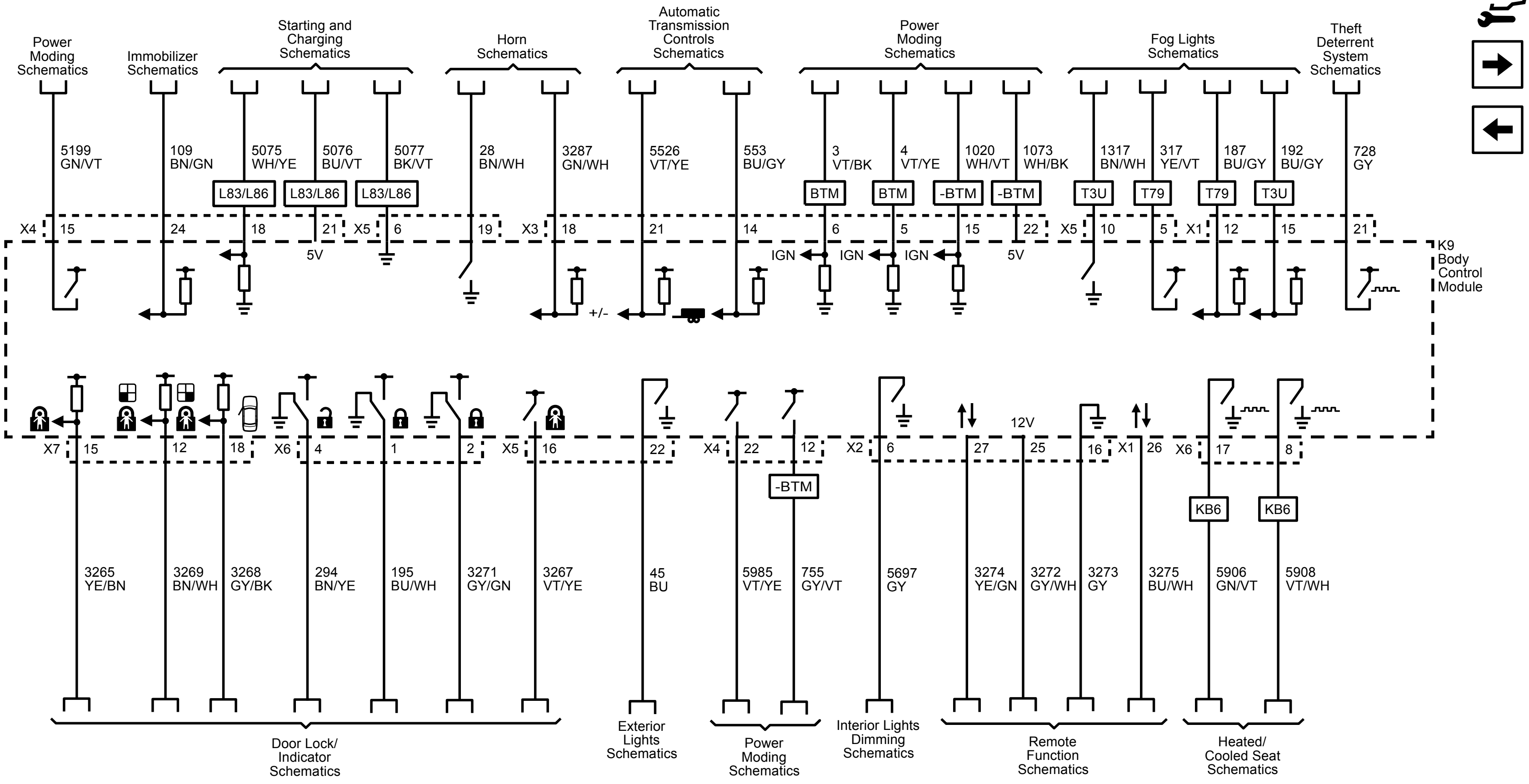
Communications Enable - Object High Speed GMLAN (UGN)


K124
Active
Safety
Control
Module
X1
10
9
UVZ
3809
BN/VT
3808
GY/VT
J344
3808
GY/VT
3808
GY/VT
X495
9
X150
13
3809
BN/VT
3808
GY/VT
J494
-UVZ
UVZ
J111
3808
GY/VT
3808
GY/VT
X315
9
X100
19
3809
BN/VT
3809
BN/VT
3808
GY/VT
3808
GY/VT
J106
3808
GY/VT
3808
GY/VT
5
IGN
B233LR
Radar
Sensor
Module -
Short
Range
Left Rear
5
IGN
B233RR
Radar
Sensor
Module -
Short
Range
Right Rear
10
IGN
K109
Frontview
Camera
Module
6
IGN
B233B
Radar
Sensor
Module -
Long
Range
5
IGN
B233LF
Radar
Sensor
Module -
Short
Range
Left Front
5
IGN
B233RF
Radar
Sensor
Module -
Short
Range
Right Front

Module Power, Ground and Serial Data

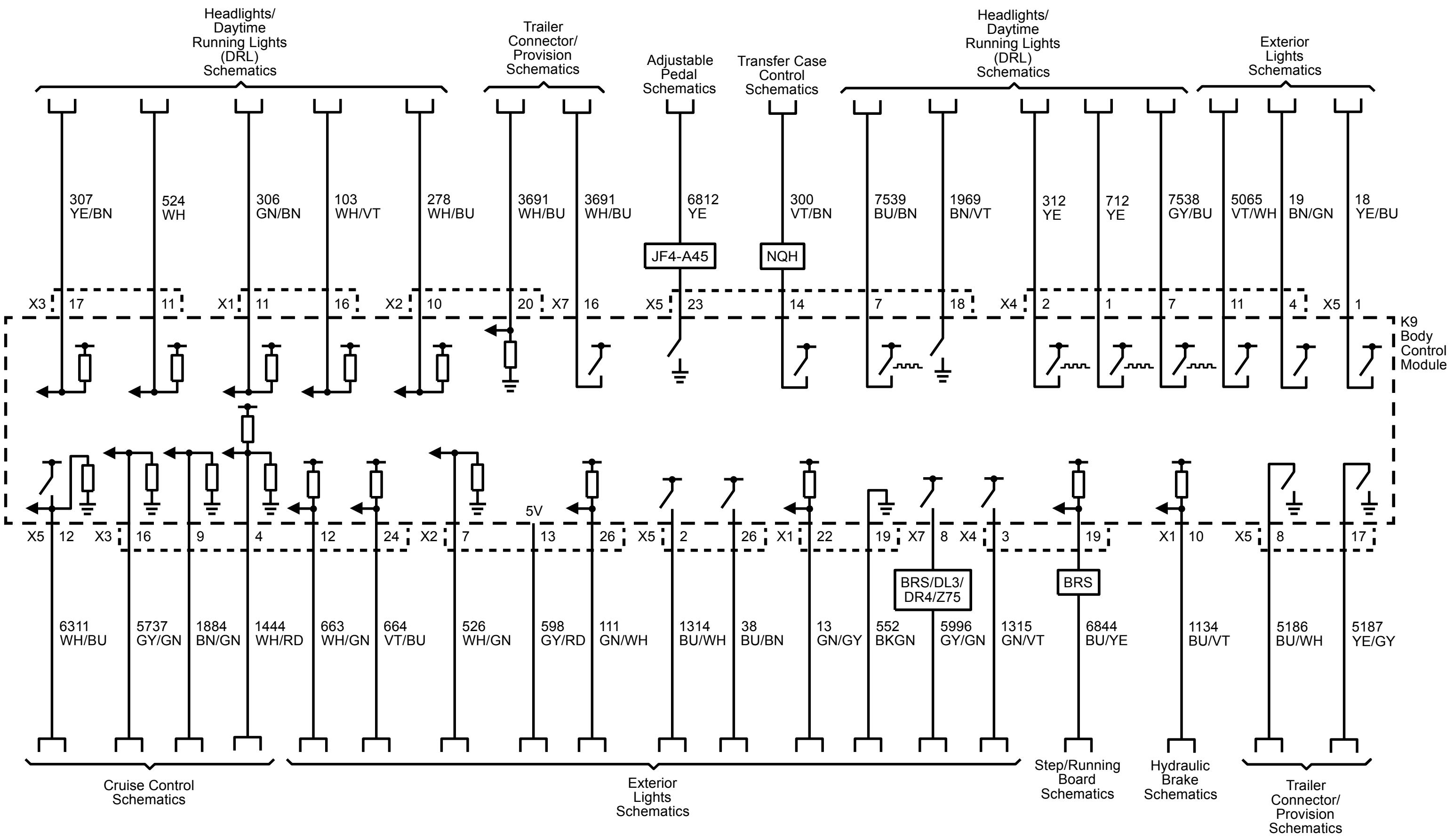

B+
X50A Fuse Block - Underhood
F26UA 5A
X4 M1
2340 RD/YE
X4 20
X51L Fuse Block - Instrument Panel Left
F19DL 10A
F11DL 10A
F10DL 20A
X2 18
7
8
2740 RD/WH
2940 RD/BN
2140 RD/GY
X2 1
3
X1 3
X51R Fuse Block - Instrument Panel Right
F13DR 20A
F19DR 20A
F38DR 10A
F47DR 15A
F46DR 15A
X2 7
8
29
X1 34
33
4040 RD/VT
2540 RD/BU
2240 RD/BN
5140 RD/GN
3440 RD/WH
X2 4
X1 2
4
X5 3
4
K9 Body Control Module
X4 26
X6 3
X1 1
X2 2
X7 23
X6 16
9
10
X2 21
X3 2
19
X1 24
25
X6 25
24
X4 23
22
451 BK/WH
1850 BK
1850 BK
1850 BK
5060 GN
6132 GN/BN
6133 GN/BU
6134 GN/YE
6135 GN/GY
7533 GN/VT
7527 OG
2501 WH
2500 BU
2501 WH
2500 BU
5986 WH/BU
5985 VT/YE
Data Communication Schematics
G110
G218

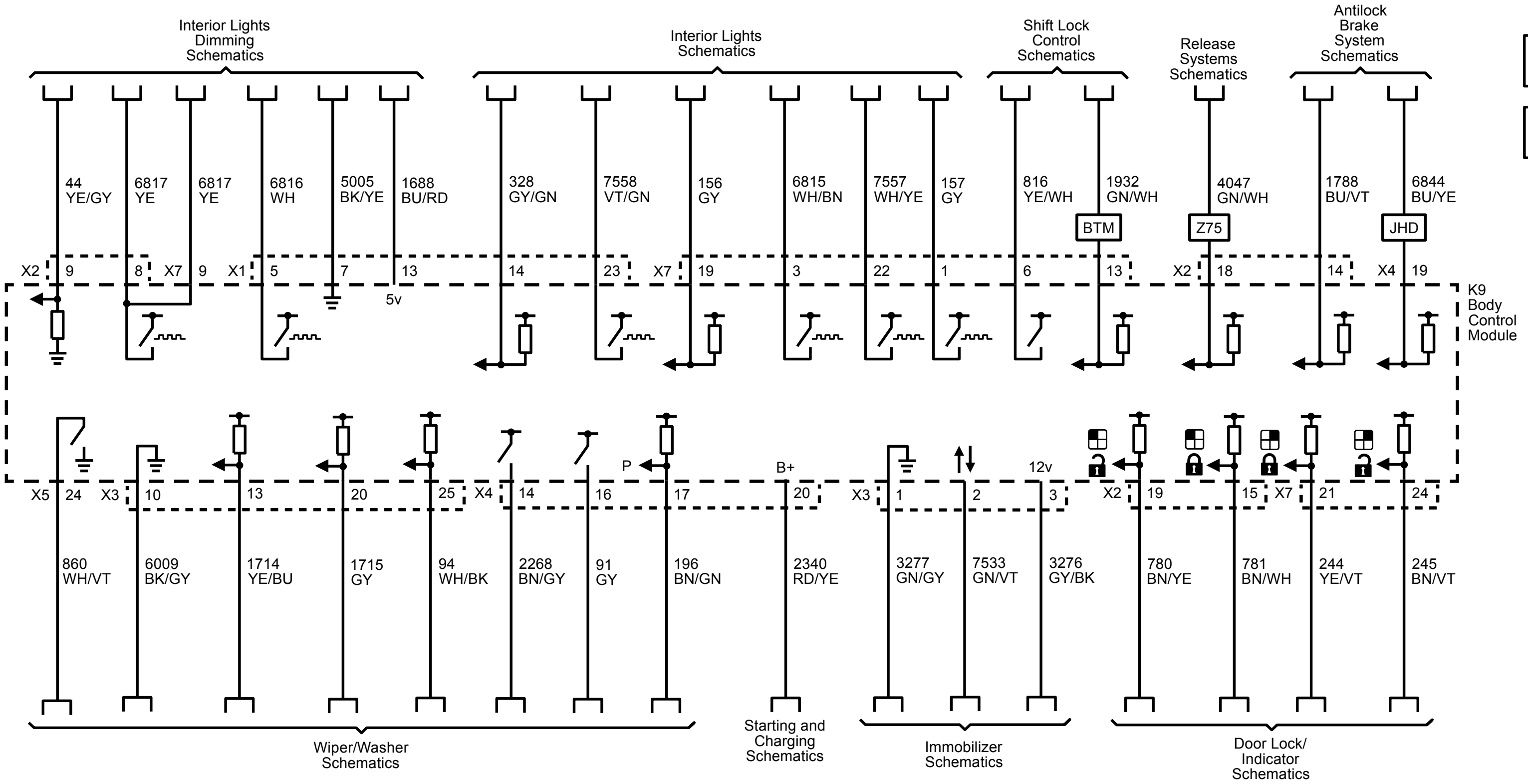
Subsystem References (1 of 4)



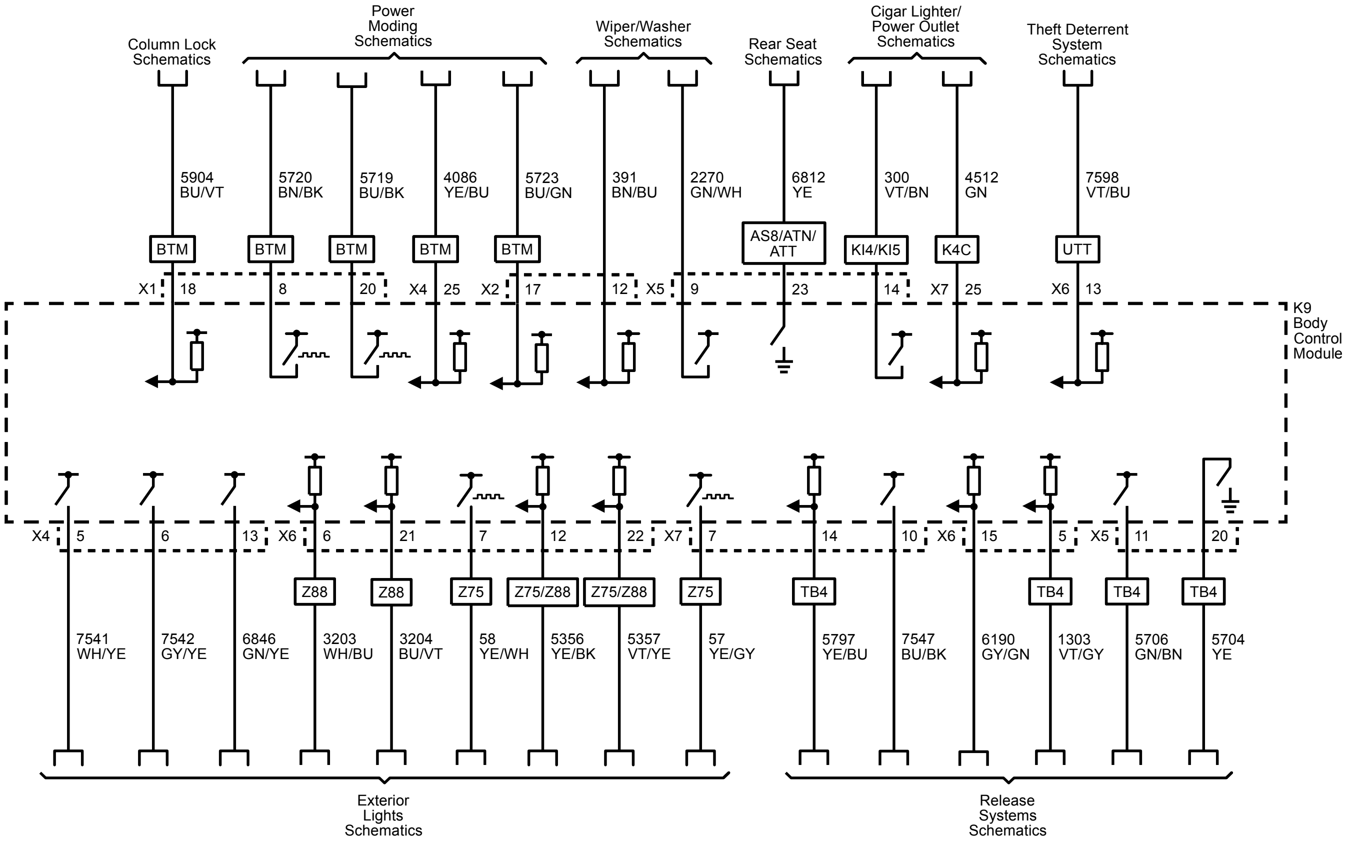
Power Moding Schematics
Immobilizer Schematics
Starting and Charging Schematics
Horn Schematics
Automatic Transmission Controls Schematics
Power Moding Schematics
Fog Lights Schematics
Theft Deterrent System Schematics
5199 GN/VT
109 BN/GN
5075 WH/YE
5076 BU/VT
5077 BK/VT
28 BN/WH
3287 GN/WH
5526 VT/YE
553 BU/GY
3 VT/BK
4 VT/YE
1020 WH/VT
1073 WH/BK
1317 BN/WH
317 YE/VT
187 BU/GY
192 BU/GY
728 GY
L83/L86
L83/L86
L83/L86
BTM
BTM
-BTM
-BTM
T3U
T79
T79
T3U
X4
15
24
18
21
X5
6
19
X3
18
21
14
6
5
15
22
X5
10
5
X1
12
15
21
5V
+/-
IGN
IGN
IGN
5V
K9 Body Control Module
X7
15
12
18
X6
4
1
2
X5
16
22
X4
22
12
X2
6
12V
27
25
16
X1
26
X6
17
8
-BTM
KB6
KB6
3265 YE/BN
3269 BN/WH
3268 GY/BK
294 BN/YE
195 BU/WH
3271 GY/GN
3267 VT/YE
45 BU
5985 VT/YE
755 GY/VT
5697 GY
3274 YE/GN
3272 GY/WH
3273 GY
3275 BU/WH
5906 GN/VT
5908 VT/WH
Door Lock/ Indicator Schematics
Exterior Lights Schematics
Power Moding Schematics
Interior Lights Dimming Schematics
Remote Function Schematics
Heated/ Cooled Seat Schematics

Subsystem References (2 of 4)


Headlights/ Daytime Running Lights (DRL) Schematics
Trailer Connector/ Provision Schematics
Adjustable Pedal Schematics
Transfer Case Control Schematics
Headlights/ Daytime Running Lights (DRL) Schematics
Exterior Lights Schematics
307 YE/BN
524 WH
306 GN/BN
103 WH/VT
278 WH/BU
3691 WH/BU
3691 WH/BU
6812 YE
300 VT/BN
7539 BU/BN
1969 BN/VT
312 YE
712 YE
7538 GY/BU
5065 VT/WH
19 BN/GN
18 YE/BU
JF4-A45
NQH
X3 17
11
X1 11
16
X2 10
20
X7 16
X5 23
14
7
18
X4 2
1
7
11
4
X5 1
K9 Body Control Module
5V
X5 12
X3 16
9
4
12
24
X2 7
13
26
X5 2
26
X1 22
19
X7 8
X4 3
19
X1 10
X5 8
17
BRS/DL3/ DR4/Z75
BRS
6311 WH/BU
5737 GY/GN
1884 BN/GN
1444 WH/RD
663 WH/GN
664 VT/BU
526 WH/GN
598 GY/RD
111 GN/WH
1314 BU/WH
38 BU/BN
13 GN/GY
552 BKGN
5996 GY/GN
1315 GN/VT
6844 BU/YE
1134 BU/VT
5186 BU/WH
5187 YE/GY
Cruise Control Schematics
Exterior Lights Schematics
Step/Running Board Schematics
Hydraulic Brake Schematics
Trailer Connector/ Provision Schematics


Interior Lights Dimming Schematics
Interior Lights Schematics
Shift Lock Control Schematics
Release Systems Schematics
Antilock Brake System Schematics
44 YE/GY
6817 YE
6817 YE
6816 WH
5005 BK/YE
1688 BU/RD
328 GY/GN
7558 VT/GN
156 GY
6815 WH/BN
7557 WH/YE
157 GY
816 YE/WH
1932 GN/WH
4047 GN/WH
1788 BU/VT
6844 BU/YE
BTM
Z75
JHD
X2
9
8
X7
9
X1
5
7
13
5v
14
23
X7
19
3
22
1
6
13
X2
18
14
X4
19
K9 Body Control Module
X5
24
X3
10
13
20
25
X4
14
16
P
17
B+
20
X3
1
2
12v
3
X2
19
15
X7
21
24
860 WH/VT
6009 BK/GY
1714 YE/BU
1715 GY
94 WH/BK
2268 BN/GY
91 GY
196 BN/GN
2340 RD/YE
3277 GN/GY
7533 GN/VT
3276 GY/BK
780 BN/YE
781 BN/WH
244 YE/VT
245 BN/VT
Wiper/Washer Schematics
Starting and Charging Schematics
Immobilizer Schematics
Door Lock/ Indicator Schematics

Subsystem References (4 of 4)


Column Lock Schematics
Power Moding Schematics
Wiper/Washer Schematics
Rear Seat Schematics
Cigar Lighter/ Power Outlet Schematics
Theft Deterrent System Schematics
5904 BU/VT
5720 BN/BK
5719 BU/BK
4086 YE/BU
5723 BU/GN
391 BN/BU
2270 GN/WH
6812 YE
300 VT/BN
4512 GN
7598 VT/BU
BTM
BTM
BTM
BTM
BTM
AS8/ATN/ ATT
KI4/KI5
K4C
UTT
X1
18
8
20
X4
25
X2
17
12
X5
9
23
14
X7
25
X6
13
K9 Body Control Module
X4
5
6
13
X6
6
21
7
12
22
X7
7
14
10
X6
15
5
X5
11
20
Z88
Z88
Z75
Z75/Z88
Z75/Z88
Z75
TB4
TB4
TB4
TB4
7541 WH/YE
7542 GY/YE
6846 GN/YE
3203 WH/BU
3204 BU/VT
58 YE/WH
5356 YE/BK
5357 VT/YE
57 YE/GY
5797 YE/BU
7547 BU/BK
6190 GY/GN
1303 VT/GY
5706 GN/BN
5704 YE
Exterior Lights Schematics
Release Systems Schematics

Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the high speed GMLAN serial data bus, low speed GMLAN serial data bus and Multiple LIN buses and acts as a gateway between them.

Power Mode Master

This vehicle body control module (BCM) functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determining the power mode that will be sent over the serial data circuits to the other modules that need this information; the PMM will activate relays and other direct outputs of the PMM as needed. Refer to Power Mode Description and Operation (With BTM)Power Mode Description and Operation (Without BTM) for a complete description of power mode functions.

Gateway

The body control module (BCM) in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

All communication between the BCM and a scan tool is on the high speed GMLAN serial data circuits. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control

The various body control module (BCM) input and output circuits are illustrated in the corresponding functional areas on the BCM electrical schematics. Refer to the Body Control System Schematics for more detailed information.

Data Link Communications Description and Operation

Note: This is an overview of different serial data buses used by GM devices to communicate with each others. Use Data Communication Schematics to find out which serial data buses are configured for a specific vehicle.

Circuit Description

There are many components in a vehicle that rely on information from other sources, transmit information to other sources, or both. Serial data communication networks provide a reliable, cost effective, way for various components of the vehicle to “talk” to one another and share information.

GM uses a number of different communication buses to insure the timely and efficient exchange of information between devices. When compared to each other, some of these buses are different in nature as far as speed, signal characteristics, and behavior. An example of this is the High Speed GMLAN and Low Speed GMLAN buses.

On the other hand, when other buses are compared to each other they have similar characteristics and simply operate in parallel. In this case they are used to group together components which have high interaction. Examples are the High Speed GMLAN, Powertrain Expansion, and Chassis Expansion buses. This allows them to communicate with each other on a bus with reduced message congestion insuring faster and the more timely exchange of information than if all vehicle devices were on a single bus.

The majority of information that exists within a given network generally stays local; however some information will have to be shared on other networks. Control modules designated as Gateway’s perform the function of transferring information between the various buses. A Gateway module is connected to at least 2 buses and will interact with each network according to its message strategy and transmission models.

GMLAN provides the capability for a receiving device to monitor message transmissions from other devices in order to determine if messages of interest are not being received. The primary purpose is to allow reasonable default values to be substituted for the information no longer being received. Additionally, a device may set a Diagnostic Trouble Code to indicate that the device it is expecting information from is no longer communicating.

High Speed GMLAN Circuit Description

A High Speed GMLAN Bus is used where data needs to be exchanged at a high enough rate to minimize the delay between the occurrence of a change in sensor value and the reception of this information by a control device using the information to adjust vehicle system performance.

The High Speed GMLAN serial data network consists of two twisted wires. One signal circuit is identified as GMLAN-High and the other signal circuit is identified as GMLAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the GMLAN-High and GMLAN-Low circuits.

Data symbols (1’s and 0’s) are transmitted sequentially at a rate of 500 Kbit/s. The data to be transmitted over the bus is represented by the voltage difference between the GMLAN-High signal voltage and the GMLAN-Low signal voltage.

When the two wire bus is at rest the GMLAN-High and GMLAN-Low signal circuits are not being driven and this represents a logic “1”. In this state both signal circuits are at the same voltage of 2.5 V. The differential voltage is approximately 0 V.

When a logic “0” is to be transmitted, the GMLAN-High signal circuit is driven higher to about 3.5 V and the GMLAN-Low circuit is driven lower to about 1.5 V. The differential voltage becomes approximately 2.0 (+/- 0.5) V.

Chassis High Speed GMLAN Circuit Description

The GMLAN Chassis Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for chassis components. This implementation splits message congestion between two parallel buses helping to insure timely message transmission and reception. Sometimes communication is required between the Chassis Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K17 Electronic Brake Control Module (EBCM) as the Gateway module. Since the High Speed GMLAN Chassis Expansion Bus and primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Powertrain High Speed GMLAN Circuit Description

The GMLAN Powertrain Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for Powertrain components. The bus is optional based upon feature content. Sometimes communication is required between the Powertrain Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K20 Engine Control Module (ECM) as the Gateway module. Since the High Speed GMLAN Powertrain Expansion Bus and the primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Object High Speed GMLAN Circuit Description

The GMLAN Object Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for the enhanced safety system. This implementation is used to isolate the heavy communication among the enhanced safety system devices from the other vehicle buses, reducing congestion. The K124 Active Safety Control Module is connected to the Object Bus as well as the Primary High Speed GMLAN Bus, the Chassis Expansion Bus, and the Low Speed GMLAN Bus. The K124 Active Safety Control Module acts as a Gateway module for all required communication between the Object Bus devices and devices on these other vehicle buses. The GMLAN Object Bus operates in the same manner as the Chassis Expansion and Primary High Speed buses and so the diagnostics are similar. The Object Bus is physically partitioned into a Front Object Bus and a Rear Object Bus with each partition having its own communication enable circuit to activate the partition, but functional operation of both is identical. The Front Object Bus standard devices are the K124 Active Safety Control Module, the K109 Frontview Camera Module, and the B233B Radar Sensor Module – Long Range. The Front Object Bus optional devices are the B233LF Radar Sensor Module – Short Range Left Front and the B233RF Radar Sensor Module – Short Range Right Front. The Rear Object Bus is optional and when present will have the K124 Active Safety Control Module, B233LR Radar Sensor Module – Short Range Left Rear, and B233RR Radar Sensor Module – Short Range Right Rear on the bus. All Object Bus components are powered by the K124 Active Safety Control Module via the communication enable circuits, except the K109 Frontview Camera Module which is powered directly by battery.

Media Oriented Systems Transport (MOST) Circuit Description

The MOST Infotainment network is a dedicated high speed multimedia streaming data bus independent from GMLAN. The MOST bus will be configured in a physical hardwired loop with each device within the bus sends and receives data on an assigned MOST addresses in a set order. Each device on the MOST bus will be required to have twisted pair copper wires (2 transmit TX, 2 receive RX, and 1 electronic control line which is a 12 V wakeup signal line). The A11 Radio is the MOST Master and will monitor the bus for vehicle configuration, Infotainment data messages and errors on the bus. The MOST initialization consists of a short 100 ms low voltage pulse on the electronic control line (or MOST control line) connected to all devices contained on the MOST ring. This wakeup message once received by each device, will first respond with a generic device response. Once these initial responses on the MOST bus are reported successfully without error to the A11 Radio, the second data request will record the MOST device addresses, their functionality requirements and capabilities within. The A11 Radio will learn this information and also record the address node sequence on the MOST bus at this point. This node address list will now be stored within the A11 Radio as the MOST bus configuration (called “Last Working MOST ID of Node 1 – 9” on scan tool data display).

When MOST receive, transmit, or control line faults are detected, transmit/receive messages will not received as expected from the wakeup request. The A11 Radio and the K74 Human Machine Interface Control Module will then perform diagnostics to isolate these MOST faults. If the MOST control line is shorted low to 0 V for excess amount of time, the A11 Radio will set a U2098 DTC and K74 Human Machine Interface Control Module will set a U0029 02 DTC. At this point the MOST bus will be unable to communicate until the shorted MOST control line is repaired.

Once the shorted MOST control line diagnostics pass, the A11 Radio will attempt to resend the initial short pulse attempts up to 3 times on the MOST control line. If the expected responses are not received, the A11 Radio continues into a failure mode setting a U0028 DTC and will continue on to send one 300 ms long pulse, which will enable the furthest upstream transmitting device to become the surrogate MOST Master in this MOST fault/diagnostic mode. When the A11 Radio receives this new MOST Master identity, the surrogate MOST master device can be identified based on scan tool data parameter “Surrogate MOST Master Node Upstream Position”. The scan tool should be used to determine the MOST bus configuration and direction by utilizing the “Last Working MOST ID of Node 1 – 9” parameters from the A11 Radio data display. When a fault is present, it will indicate the newly enabled “Surrogate MOST Master Node Upstream Position” from the A11 Radio. This will assist in determining where the MOST bus/control is at fault. The MOST device upstream from the surrogate MOST master device, transmit, receive, or control lines will be the suspect areas for diagnostics at this point. These faults can be associated with any of the MOST transmit, receive, or control line twisted copper wires or possibly an internal device fault.

The K74 Human Machine Interface Control Module will set a U0029 00 DTC when it diagnoses a MOST bus not communicating properly after one attempt. When the DTC U0029 00 is set by the K74 Human Machine Interface Control Module without the corresponding DTC U0028 from the A11 Radio, it will be an indication of an intermittent wiring/device condition.

Low Speed GMLAN Circuit Description

Low Speed GMLAN Bus is used in applications where a high data rate is not required which allows for the use of less complex components. It is typically used for operator controlled functions where the response time requirements are slower than those required for dynamic vehicle control.

The Low Speed GMLAN Serial Data Network consists of a single wire, ground referenced bus with high side voltage drive. During on road vehicle operation data symbols (1’s and 0’s) are transmitted sequentially at the normal rate of 33.3 Kbit/s. For component programming only, a special high speed data mode of 83.3 Kbit/s may be used.

Unlike the high speed dual wire networks, the single wire low speed network does not use terminating resistors at either end of the network.

The data symbols to be transmitted over the bus are represented by different voltage signals on the bus. When the Low Speed GMLAN Bus is at rest and is not being driven, there is a low signal voltage of approximately 0.2 V. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven higher to around 4.0 V or higher.

Local Interconnect Network (LIN) Circuit Description

The Local Interconnect Network (LIN) Bus consists of a single wire with a transmission rate of 10.417 Kbit/s. This bus is used to exchange information between a master control module and other smart devices which provide supporting functionality. This type of configuration does not require the capacity or speed of either a High Speed GMLAN Bus or Low Speed GMLAN Bus and is thus relatively simpler.

The data symbols (1’s and 0’s) to be transmitted are represented by different voltage levels on the communication bus. When the LIN Bus is at rest and is not being driven, the signal is in a high voltage state of approximately Vbatt. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven low to about ground (0.0 V).

Communication Enable Circuit Description

Devices on High Speed GMLAN Bus enable or disable communication based on the voltage level of the communication enable circuit. When the circuit voltage is high (around 12 V), communications are enabled. When the circuit is low, communications are disabled.

Data Link Connector (DLC)

The X84 Data Link Connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and is required to provide the following:

- Terminal 1: Low speed GMLAN communications terminal
- Terminal 3: Object high speed GMLAN serial bus (+) terminal
- Terminal 4: Scan tool power ground terminal
- Terminal 5: Common signal ground terminal
- Terminal 6: High speed GMLAN serial data bus (+) terminal
- Terminal 11: Object high speed GMLAN serial bus (-) terminal
- Terminal 12: Chassis high speed GMLAN serial bus (+) terminal
- Terminal 13: Chassis high speed GMLAN serial bus (-) terminal
- Terminal 14: High speed GMLAN serial data bus (-) terminal
- Terminal 16: Scan tool power, battery positive voltage terminal

Serial Data Reference

The scan tool communicates over the various buses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every device that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm (or Not Connected) for that optional device. In order to avert misdiagnoses of No Communication with a specific device, refer to CELL Link Error - Link target cell (cell ID 148085) is invalid for this publication. for a list of devices and the buses they communicate with. Use schematics and specific vehicle build RPO codes to determine optional devices.

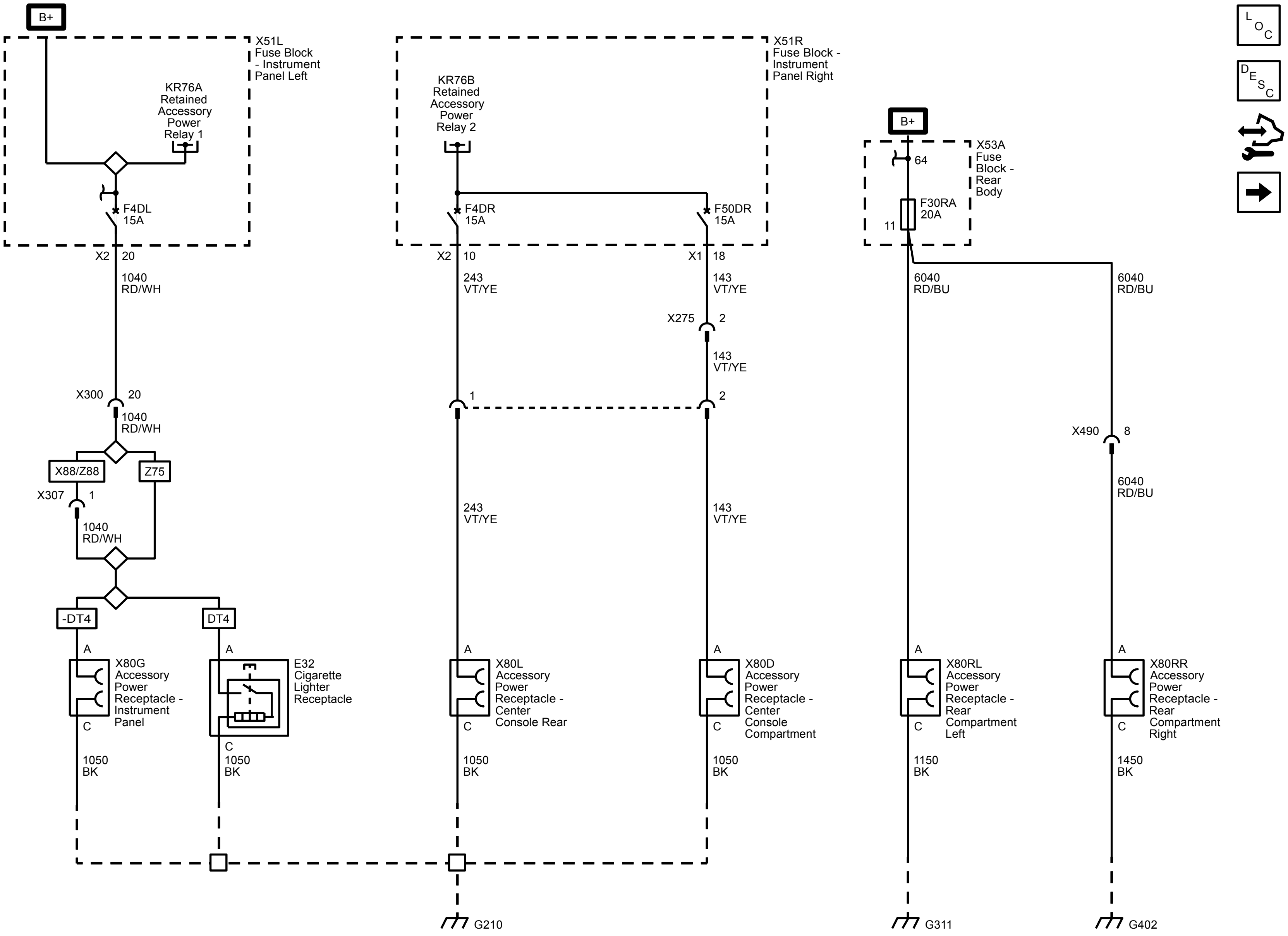
Power and Signal Distribution

Power Outlets

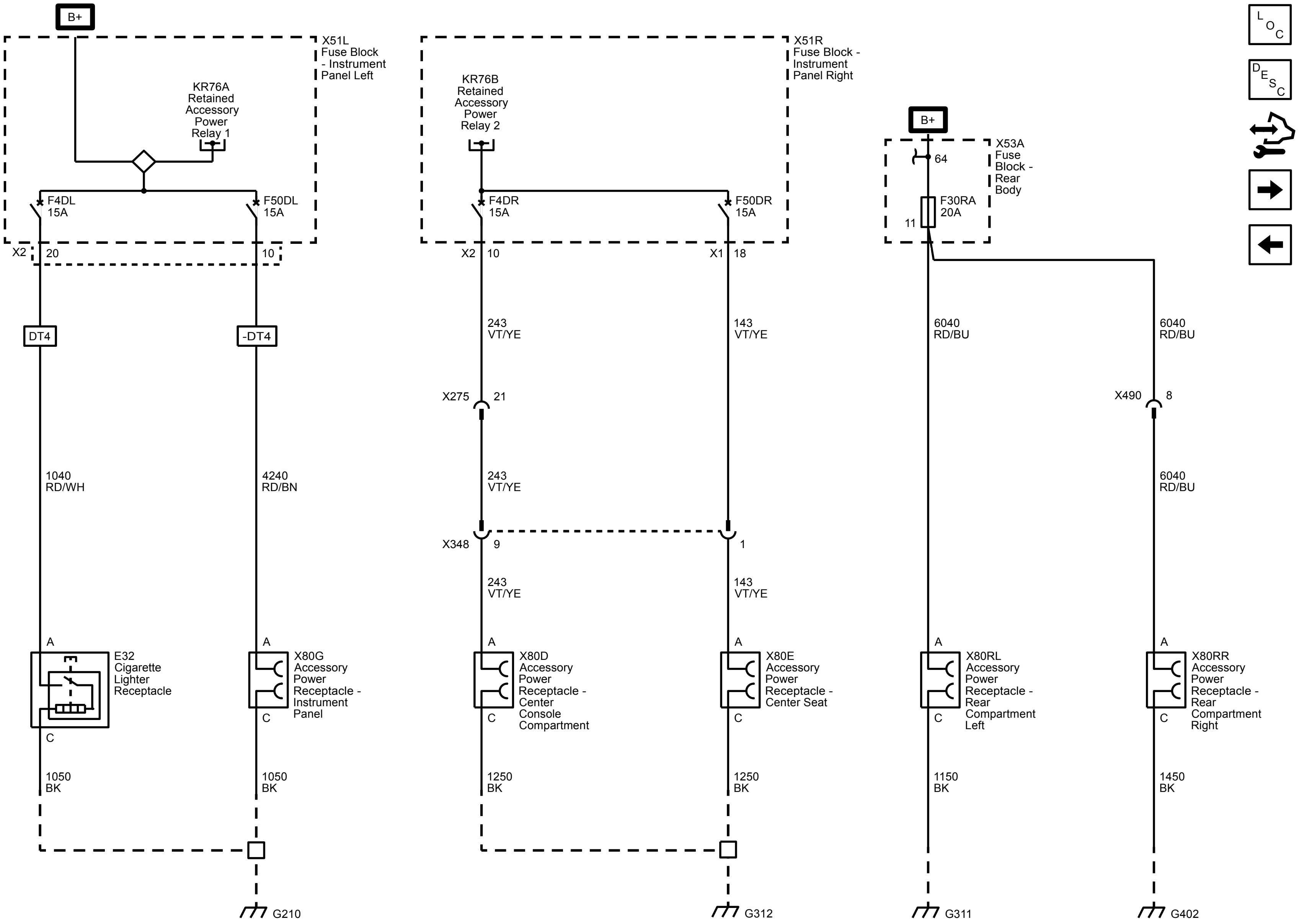
Schematic and Routing Diagrams

Cigar Lighter/Power Outlet Schematics

12-Volt DC Power Outlets (D07)


B+
X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained
Accessory
Power
Relay 1
F4DL
15A
X2
20
1040
RD/WH
X300
20
1040
RD/WH
X88/Z88
Z75
X307
1
1040
RD/WH
-DT4
DT4
A
X80G
Accessory
Power
Receptacle -
Instrument
Panel
C
1050
BK
A
E32
Cigarette
Lighter
Receptacle
C
1050
BK
X51R
Fuse Block -
Instrument
Panel Right
KR76B
Retained
Accessory
Power
Relay 2
F4DR
15A
F50DR
15A
X2
10
X1
18
243
VT/YE
143
VT/YE
X275
2
143
VT/YE
1
2
243
VT/YE
143
VT/YE
A
X80L
Accessory
Power
Receptacle -
Center
Console Rear
C
1050
BK
A
X80D
Accessory
Power
Receptacle -
Center
Console
Compartment
C
1050
BK
G210
B+
X53A
Fuse
Block -
Rear
Body
64
F30RA
20A
11
6040
RD/BU
6040
RD/BU
X490
8
6040
RD/BU
A
X80RL
Accessory
Power
Receptacle -
Rear
Compartment
Left
C
1150
BK
A
X80RR
Accessory
Power
Receptacle -
Rear
Compartment
Right
C
1450
BK
G311
G402
LOC
DESC

12-Volt DC Power Outlets (AZ3)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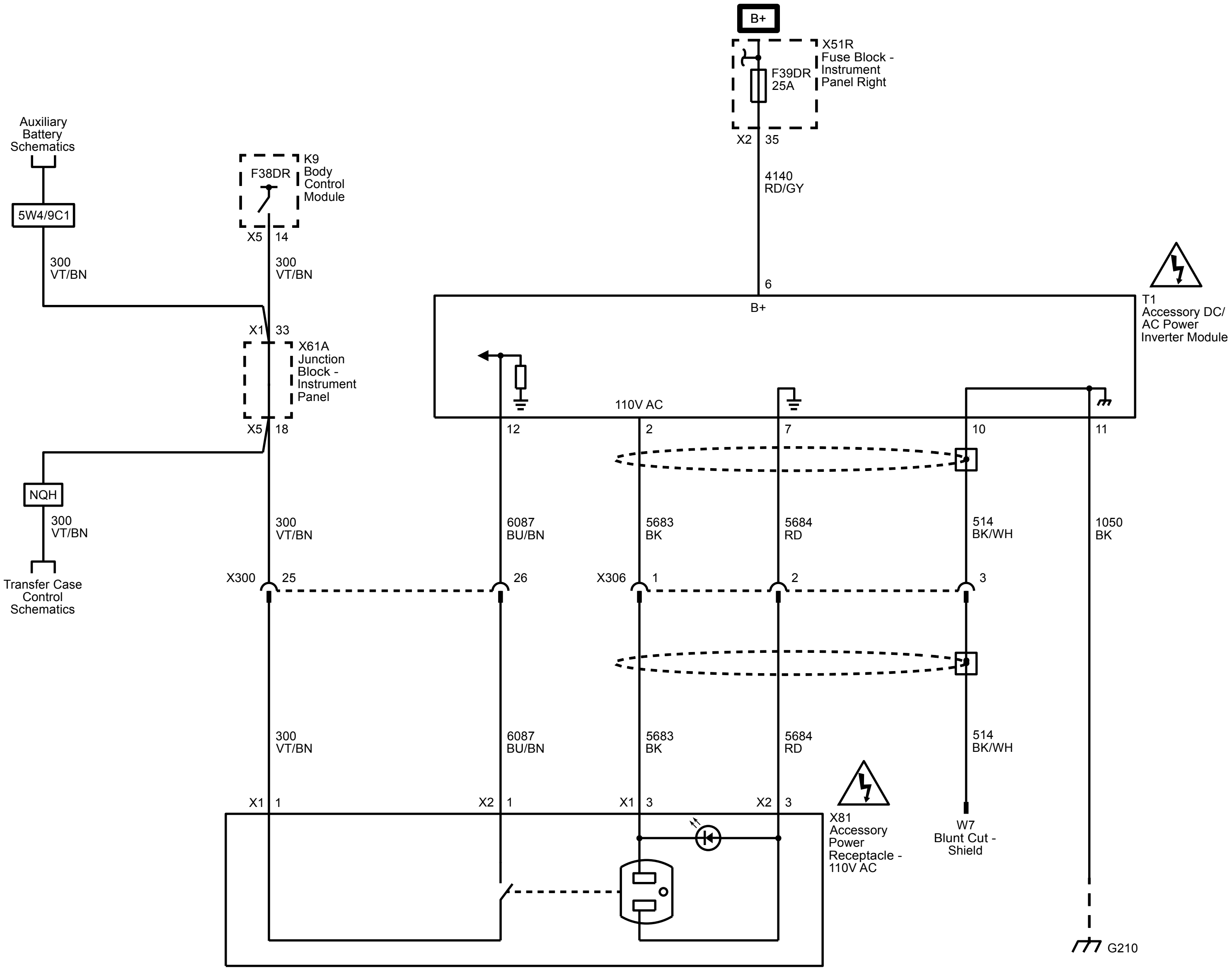
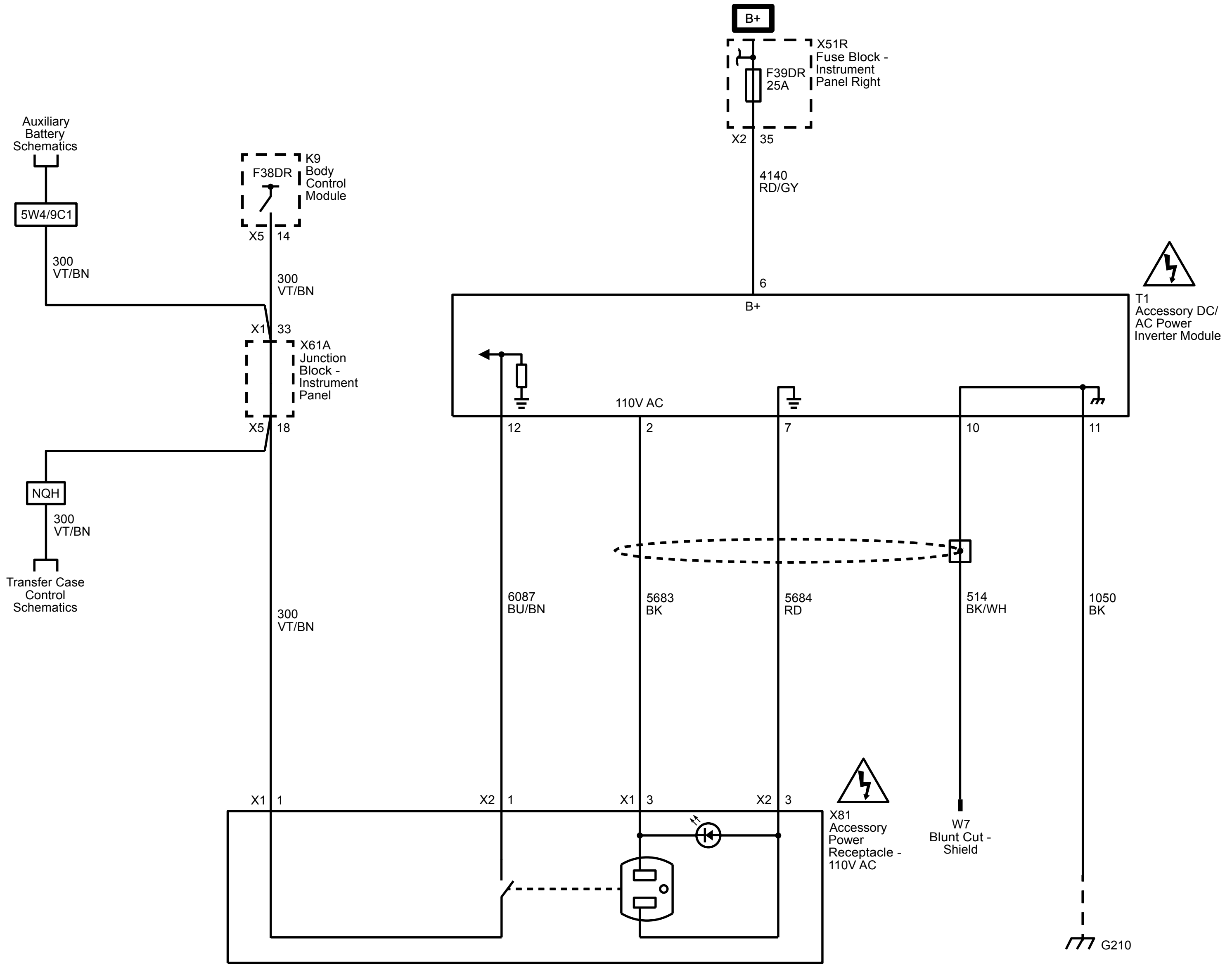
X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained
Accessory
Power
Relay 1
F4DL
15A
F50DL
15A
X2
20
10
DT4
-DT4
1040
RD/WH
4240
RD/BN
A
E32
Cigarette
Lighter
Receptacle
C
A
X80G
Accessory
Power
Receptacle -
Instrument
Panel
C
1050
BK
1050
BK
G210
X51R
Fuse Block -
Instrument
Panel Right
KR76B
Retained
Accessory
Power
Relay 2
F4DR
15A
F50DR
15A
X2
10
X1
18
243
VT/YE
143
VT/YE
X275
21
243
VT/YE
X348
9
1
243
VT/YE
143
VT/YE
A
X80D
Accessory
Power
Receptacle -
Center
Console
Compartment
C
A
X80E
Accessory
Power
Receptacle -
Center Seat
C
1250
BK
1250
BK
G312
B+
X53A
Fuse
Block -
Rear
Body
64
F30RA
20A
11
6040
RD/BU
6040
RD/BU
X490
8
6040
RD/BU
A
X80RL
Accessory
Power
Receptacle -
Rear
Compartment
Left
C
A
X80RR
Accessory
Power
Receptacle -
Rear
Compartment
Right
C
1150
BK
1450
BK
G311
G402

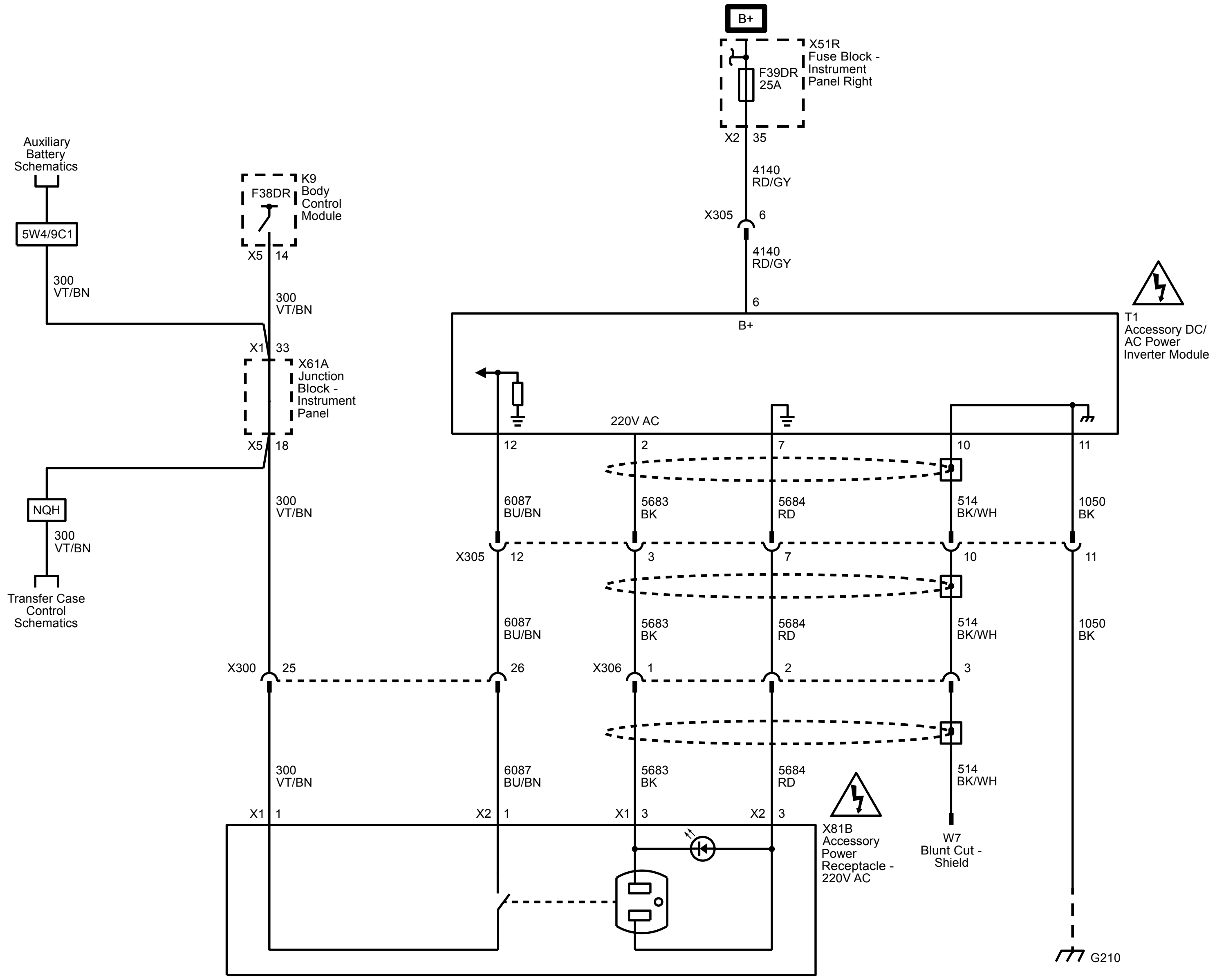
110-Volt AC Power Outlet (KI4 with D07)


B+
X51R
Fuse Block - Instrument Panel Right
F39DR
25A
X2
35
4140
RD/GY
Auxiliary Battery Schematics
5W4/9C1
300
VT/BN
F38DR
K9
Body Control Module
X5
14
300
VT/BN
6
B+
T1
Accessory DC/ AC Power Inverter Module
X1
33
X61A
Junction Block - Instrument Panel
X5
18
110V AC
12
2
7
10
11
NQH
300
VT/BN
Transfer Case Control Schematics
300
VT/BN
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
1050
BK
X300
25
26
X306
1
2
3
300
VT/BN
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
X1
1
X2
1
X1
3
X2
3
X81
Accessory Power Receptacle - 110V AC
W7
Blunt Cut - Shield
G210

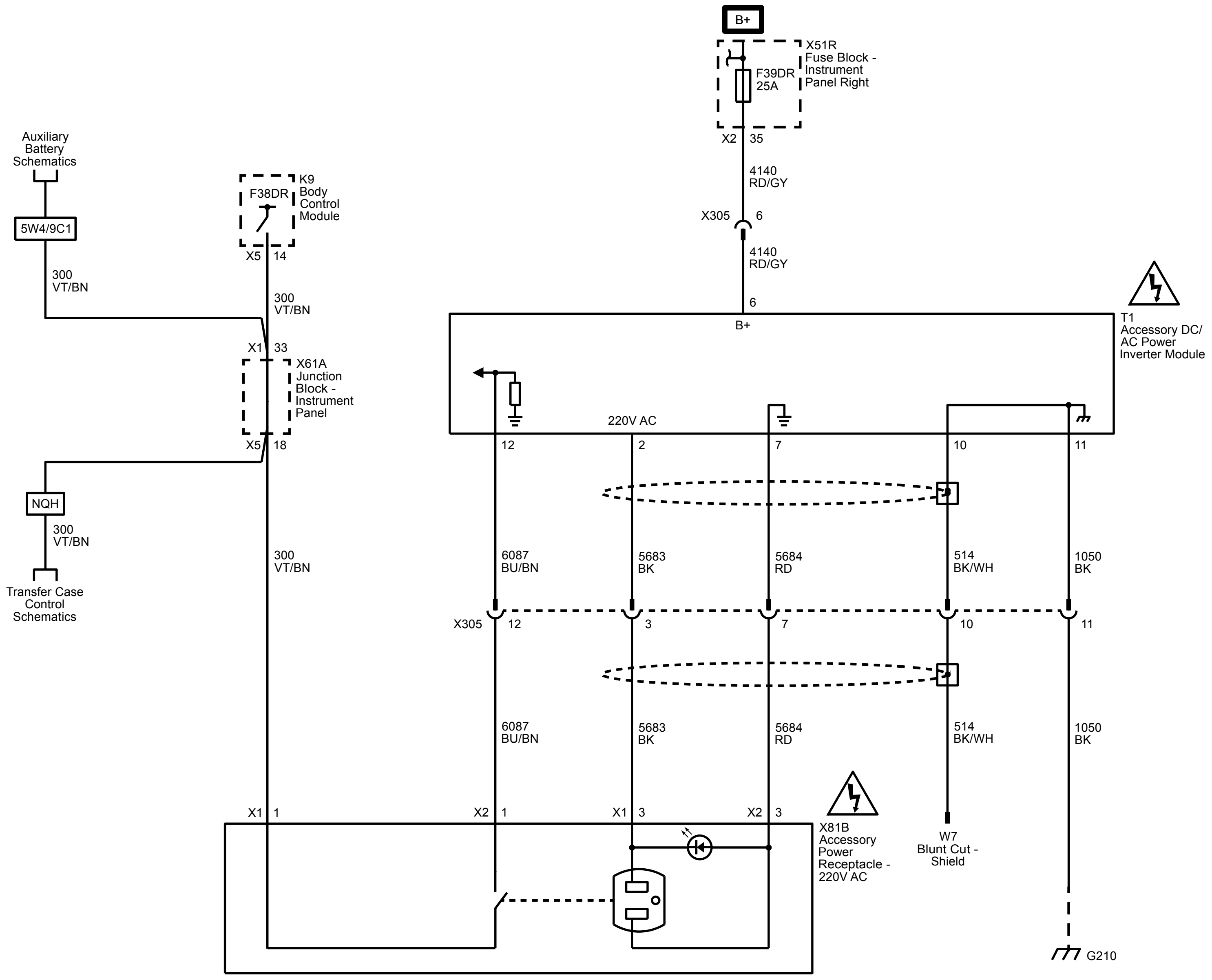
110-Volt AC Power Outlet (KI4 with AZ3)

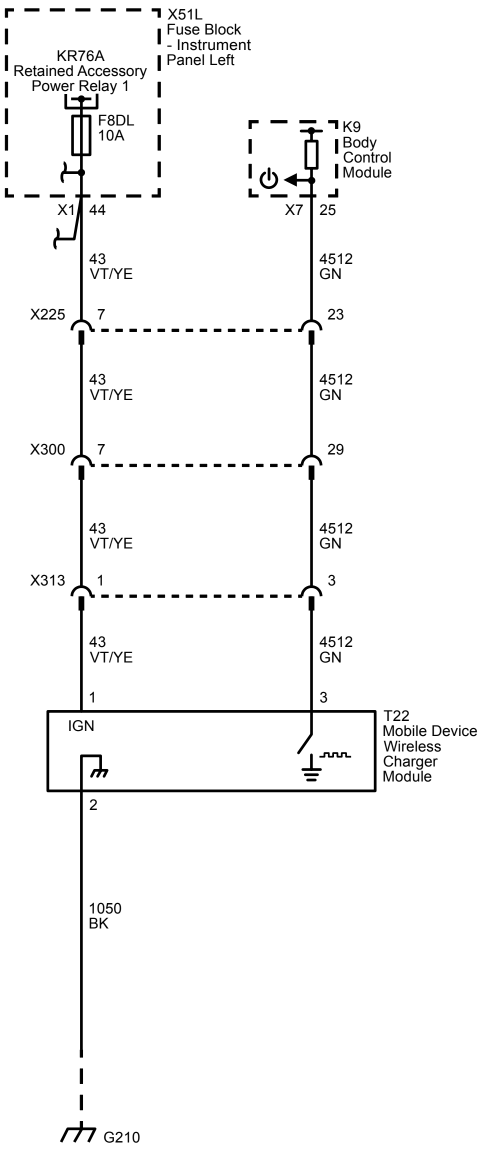

B+
X51R
Fuse Block -
Instrument
Panel Right
F39DR
25A
X2 35
4140
RD/GY
Auxiliary
Battery
Schematics
5W4/9C1
300
VT/BN
F38DR
K9
Body
Control
Module
X5 14
300
VT/BN
X1 33
X61A
Junction
Block -
Instrument
Panel
X5 18
NQH
300
VT/BN
Transfer Case
Control
Schematics
300
VT/BN
6
B+
T1
Accessory DC/
AC Power
Inverter Module
110V AC
12
2
7
10
11
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
1050
BK
X1 1
X2 1
X1 3
X2 3
X81
Accessory
Power
Receptacle -
110V AC
W7
Blunt Cut -
Shield
G210

220-Volt Power Outlet (KI5 with D07)


B+
X51R
Fuse Block - Instrument Panel Right
F39DR
25A
X2
35
4140
RD/GY
X305
6
4140
RD/GY
6
B+
T1
Accessory DC/ AC Power Inverter Module
Auxiliary Battery Schematics
5W4/9C1
300
VT/BN
K9
Body Control Module
F38DR
X5
14
300
VT/BN
X1
33
X61A
Junction Block - Instrument Panel
X5
18
NQH
300
VT/BN
Transfer Case Control Schematics
300
VT/BN
220V AC
12
2
7
10
11
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
1050
BK
X305
12
3
7
10
11
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
1050
BK
X300
25
26
X306
1
2
3
300
VT/BN
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
X1
1
X2
1
X1
3
X2
3
X81B
Accessory Power Receptacle - 220V AC
W7
Blunt Cut - Shield
G210

220-Volt Power Outlet (KI5 with AZ3)


B+
X51R
Fuse Block - Instrument Panel Right
F39DR
25A
X2
35
4140
RD/GY
X305
6
4140
RD/GY
6
B+
T1
Accessory DC/ AC Power Inverter Module
Auxiliary Battery Schematics
5W4/9C1
300
VT/BN
F38DR
K9
Body Control Module
X5
14
300
VT/BN
X1
33
X61A
Junction Block - Instrument Panel
X5
18
NQH
300
VT/BN
Transfer Case Control Schematics
220V AC
12
2
7
10
11
300
VT/BN
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
1050
BK
X305
12
3
7
10
11
6087
BU/BN
5683
BK
5684
RD
514
BK/WH
1050
BK
X1
1
X2
1
X1
3
X2
3
X81B
Accessory Power Receptacle - 220V AC
W7
Blunt Cut - Shield
G210

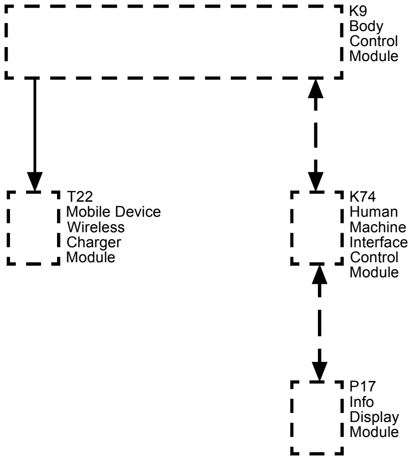

X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained Accessory
Power Relay 1
F8DL
10A
X1
44
K9
Body
Control
Module
X7
25
43
VT/YE
4512
GN
X225
7
23
43
VT/YE
4512
GN
X300
7
29
43
VT/YE
4512
GN
X313
1
3
43
VT/YE
4512
GN
1
3
IGN
T22
Mobile Device
Wireless
Charger
Module
2
1050
BK
G210

Description and Operation

Mobile Device Wireless Charger Description and Operation

Mobile Device Wireless Charging System

Mobile Device Wireless Charging System Block Diagram



The Mobile Device Wireless Charging System (WCS) is an system for wirelessly charging mobile devices. It is capable of charging the batteries of compatible mobile devices. A compatible device is one that is compliant with Power Matters Alliance (PMA) or Wireless Power Consortium (WPC) Standard, meaning that it is equipped with a PMA or WPC wireless charge “receiver” that will work with the charge “transmitter” installed in the vehicle. The devices may utilize built-in charging circuitry or an adapter (external plug-in device which contains the charging circuitry). To check for phone or other device compatibility, refer to GM Total Connect.

Warning: Remove all metal objects from the charging pad before charging your mobile device. Metal objects, such as coins, keys, rings, or paper clips, between the phone and charging pad will become very hot. On the rare occasion that the charging system does not detect a metal object, and the object gets wedged between the phone and charger, remove the phone and allow the metallic object to cool before removing it from the charging pad, to prevent burns.

Charging

To charge a device, place it on the charging surface in the vehicle. There is a charging coil located in the center of the charging surface. The device has a charging coil typically near the center of the device. These coils must be lined up in order for charging to proceed. When the interruptible retained accessory power (IRAP) relay is closed (this is true typically when vehicle ignition is in Run or Accessory position), the WCS will detect the device, establish communications with the device to confirm it is a compatible device, and then deliver charging power to the device via wireless interface. The WCS will be able to deliver up to 5W of power to compatible devices. It shall only enter a charging state if communication is established and a compatible device is identified.

The WCS shall not enter a charging state if there is no communication established with a compatible device. If a non-compatible device or metallic foreign object is detected, the WCS will not transfer power. The charger monitors its internal temperature and will shut down if the charger temperature exceeds 185F (85C).

Indicator

The body control module will detect the device battery is charging and send a serial data message on the GMLAN bus to the radio display. The radio display will indicate a device is currently charging. When the indicator is toggling on and off this indicates a thermal limit has been reached and the device will not charge. For more information refer to the infotainment owners manual.

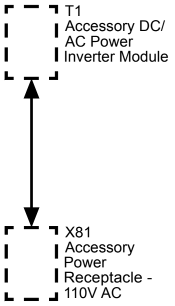
Power Outlets Description and Operation

12 Volt Power Outlet Receptacle Description and Operation

The vehicle is fitted with a 12 V accessory power receptacle. The accessory power receptacles are controlled by an ignition operated relay. The accessory power receptacles are operational when the ignition is turned to either the On or the Accessories positions. The X80G and E32 accessory power receptacles may be configured to be operational when the ignition is Off by changing the position of the 50A fuse from the F5DL position to the F6DL position in the left instrument panel fuse block.

110 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 s delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Overload Shutdown

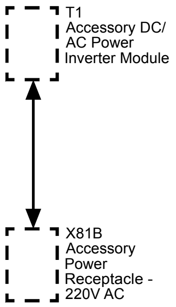
The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 s , or 2.5 A for 10 s . The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

230 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 220V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 220–230 V at 50 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 220V AC provides the usual connection for AC powered devices.

230 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 220V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 220V AC, the normally open switch in the accessory power receptacle – 220V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 220V AC switch, the inverter module begins to supply 220–230 V AC to the accessory power receptacle – 220V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

230 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 230 V circuit for a short to vehicle chassis ground. If a 230 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

230 Volt Power Outlet Receptacle Overload Shutdown

The accessory AC/DC power control module will turn OFF if the current in the 230 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

230 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the accessory power receptacle – 220V AC, and then plugged into the accessory power receptacle – 220V AC.

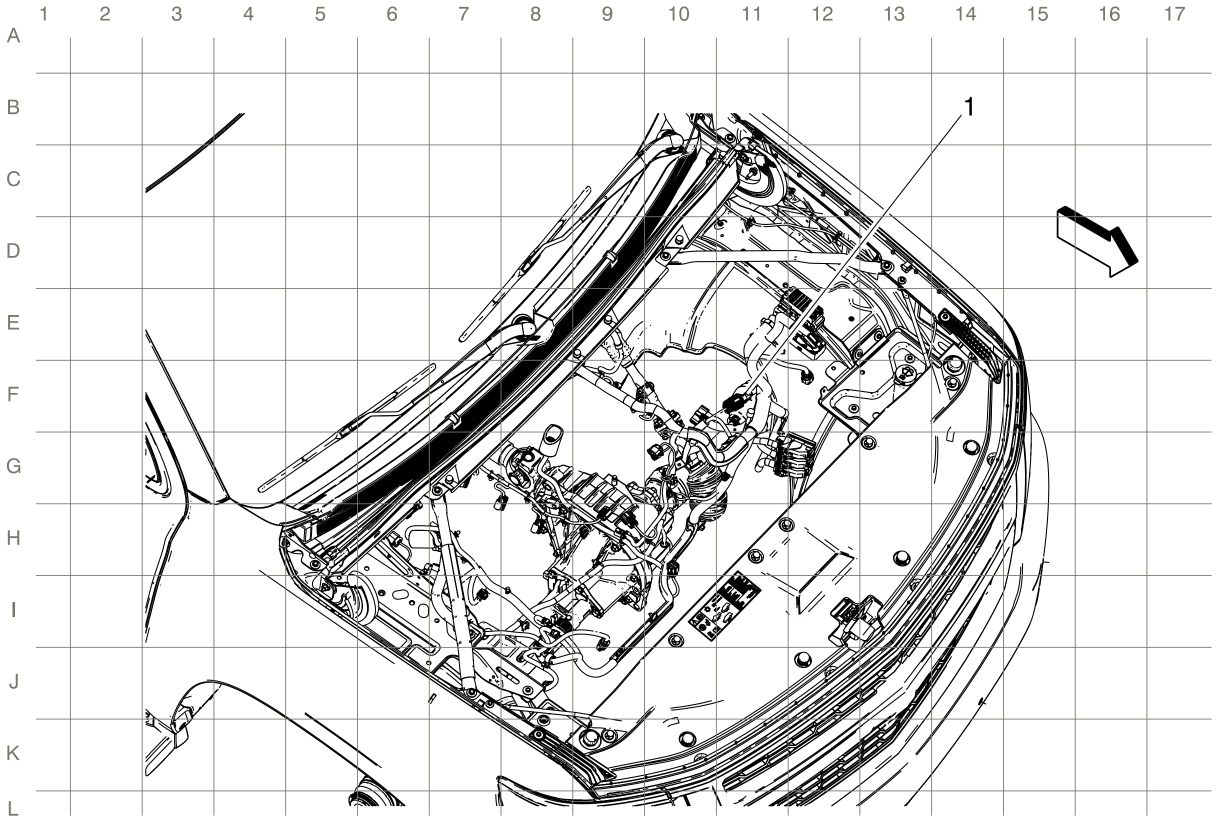
Power and Signal Distribution

Wiring Systems and Power Management

Schematic and Routing Diagrams

Harness Routing Views

Front Axle Harness Routing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K
L
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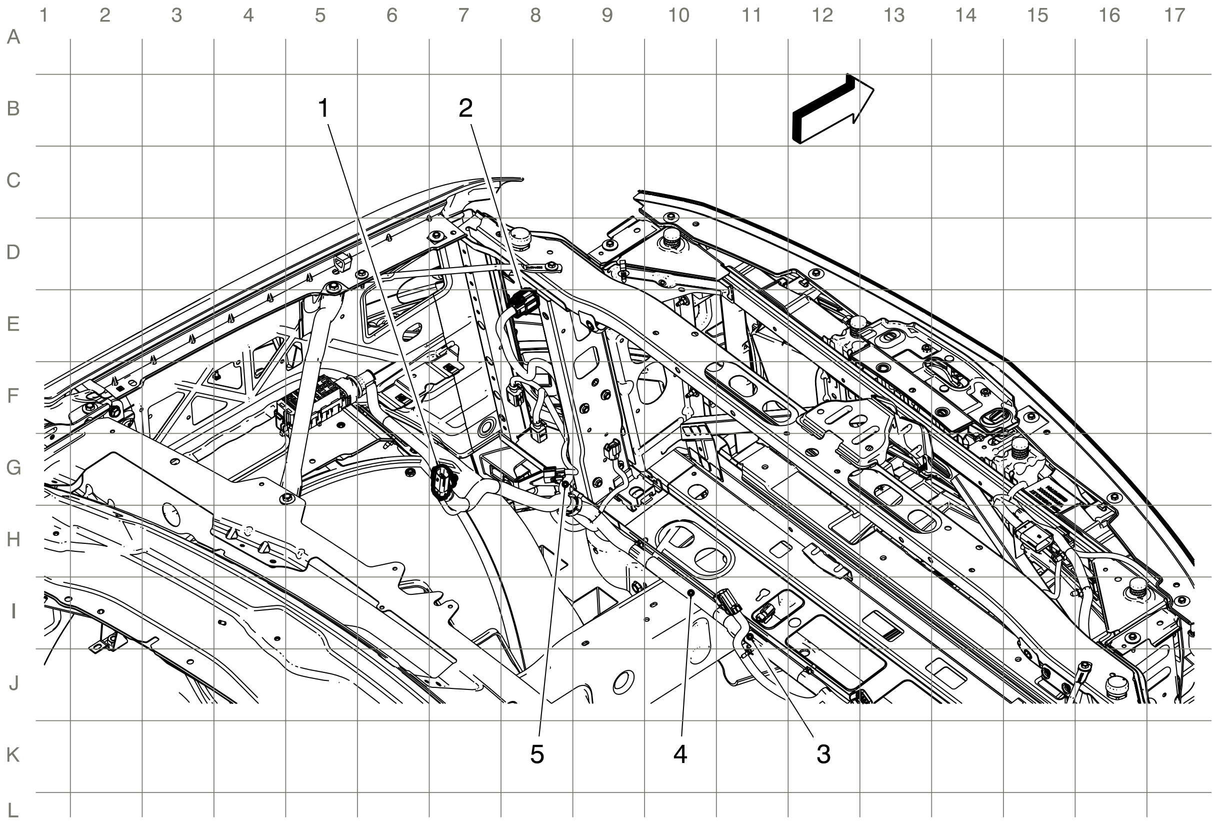
Items

1. X125

Forward Lamp Harness Routing - Left Engine Compartment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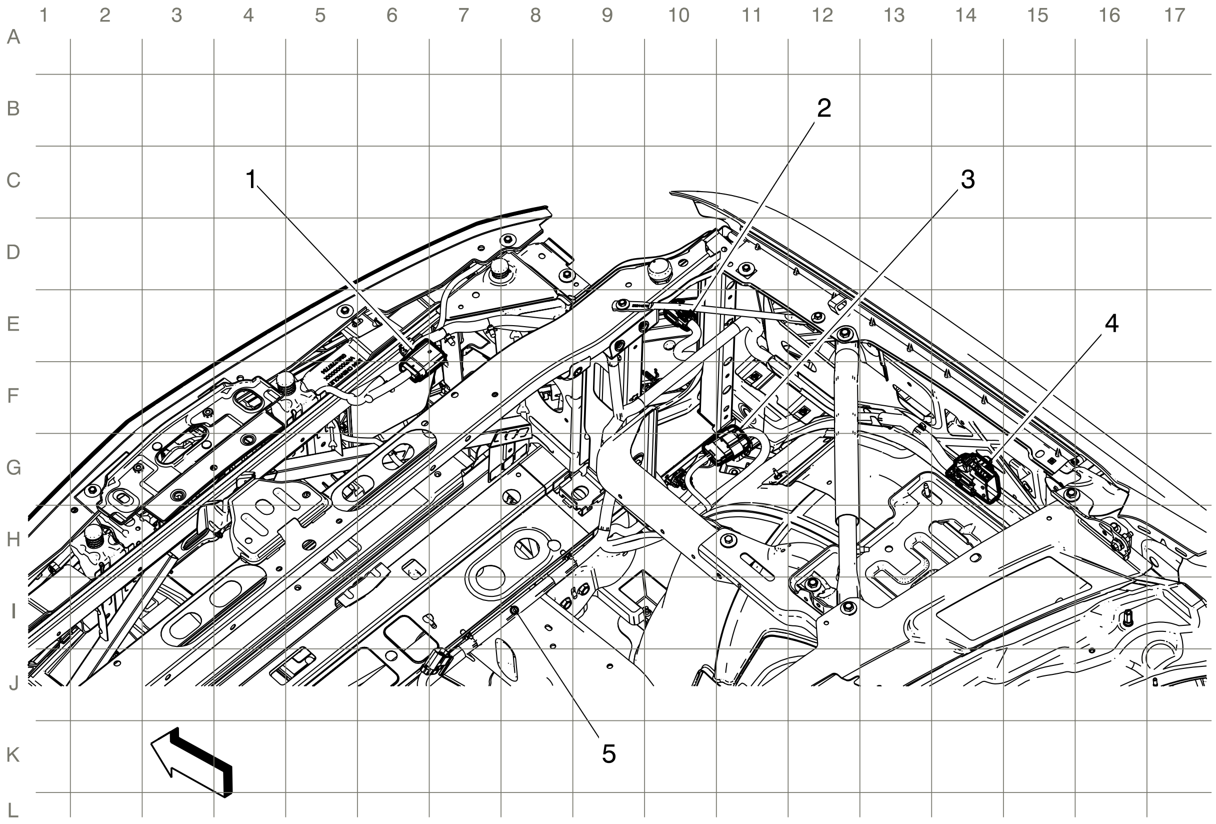
Items

1. X139
2. X110
3. J130
4. J106 (UGN with Z75)
5. J115

Forward Lamp Harness Routing - Right Engine Compartment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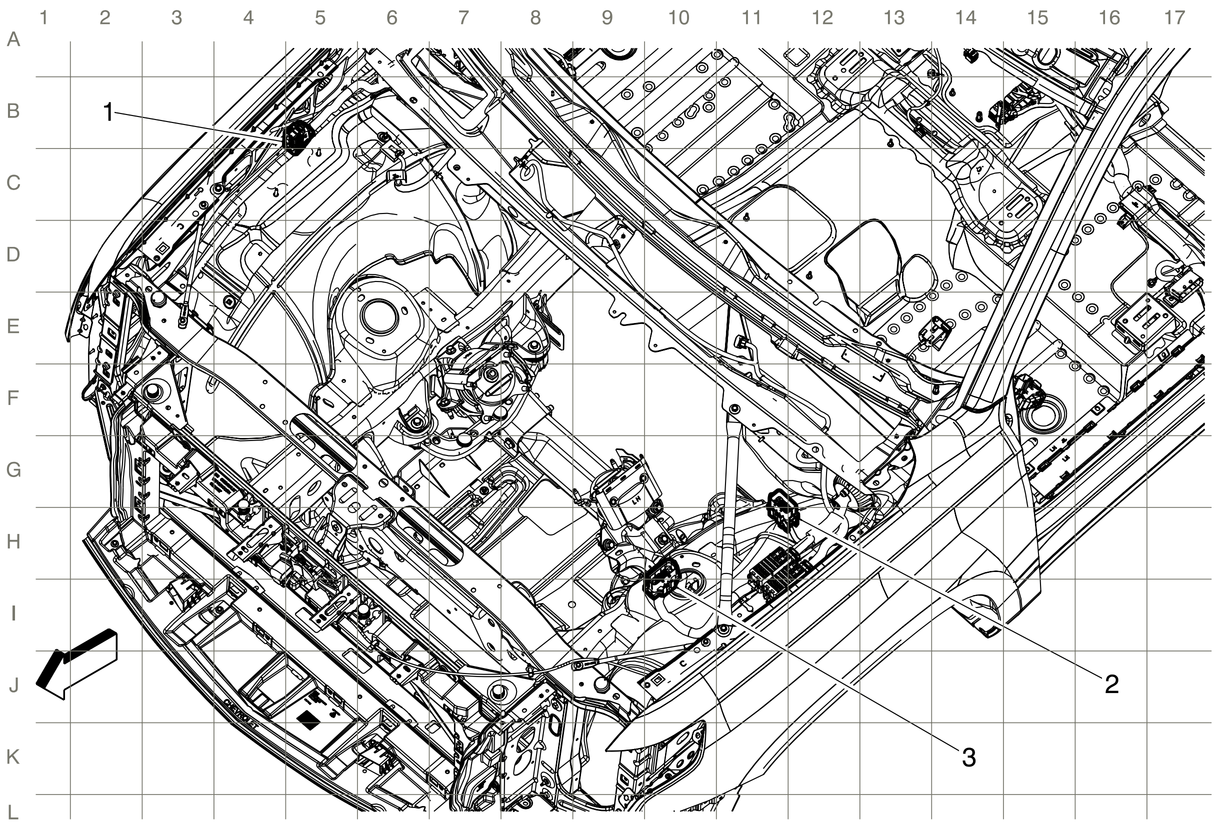
Items

1. X100
2. X120
3. X122 (6J7)
4. X150
5. J125

Body Harness Routing - Engine Compartment Top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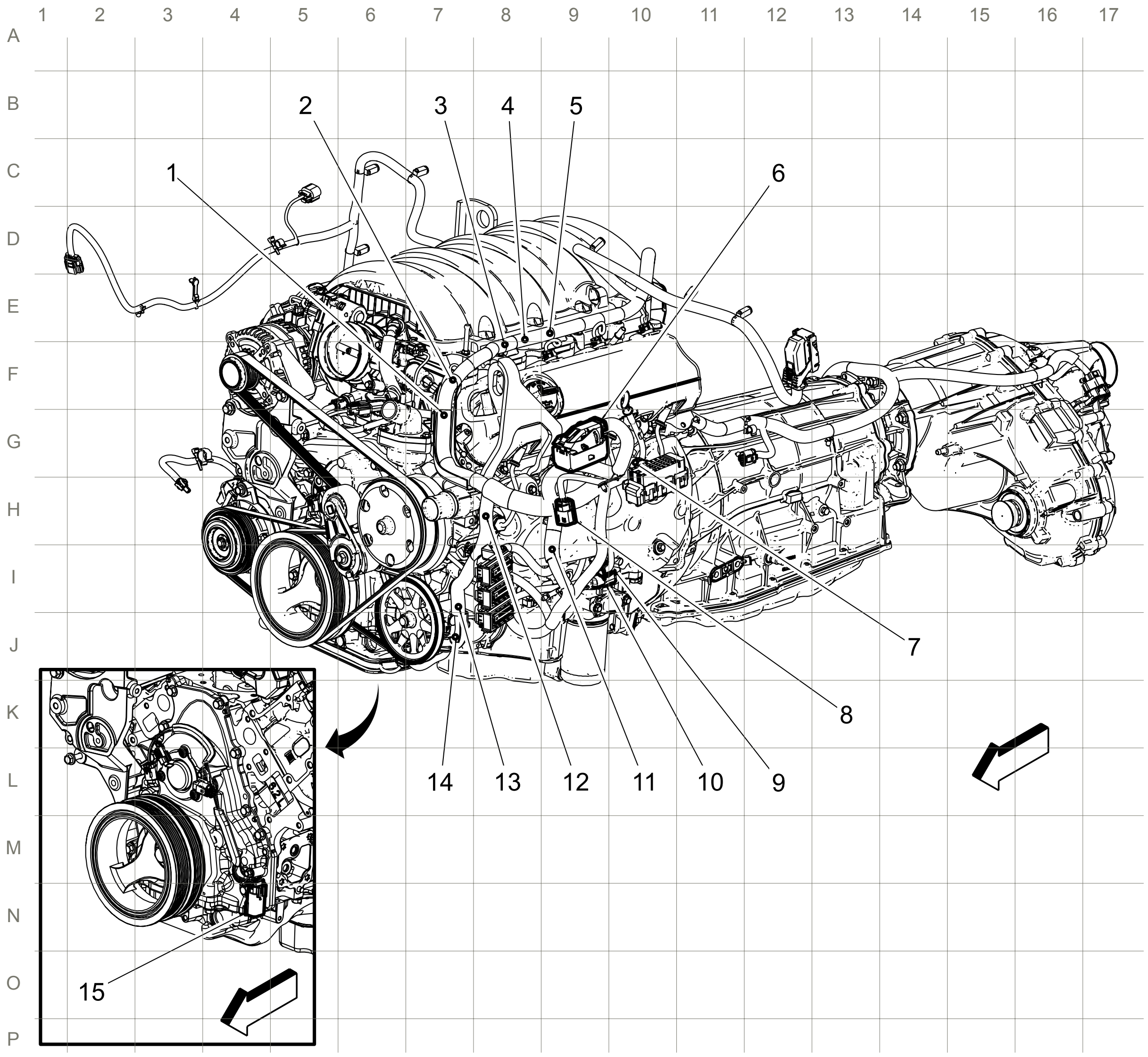
Items

1. X150
2. X185
3. X115

Engine Harness Routing - Left Front (L83 or L86)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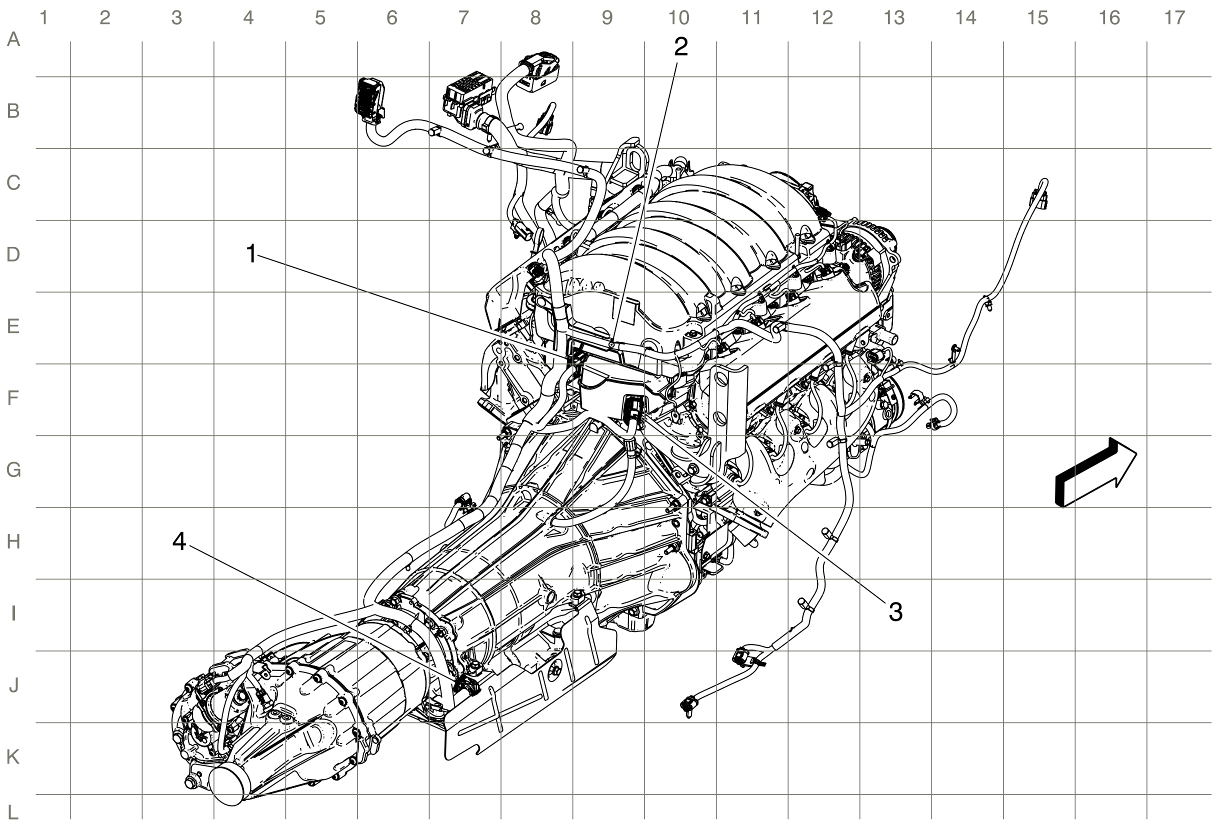
Engine Harness Routing - Right Rear (L83 or L86)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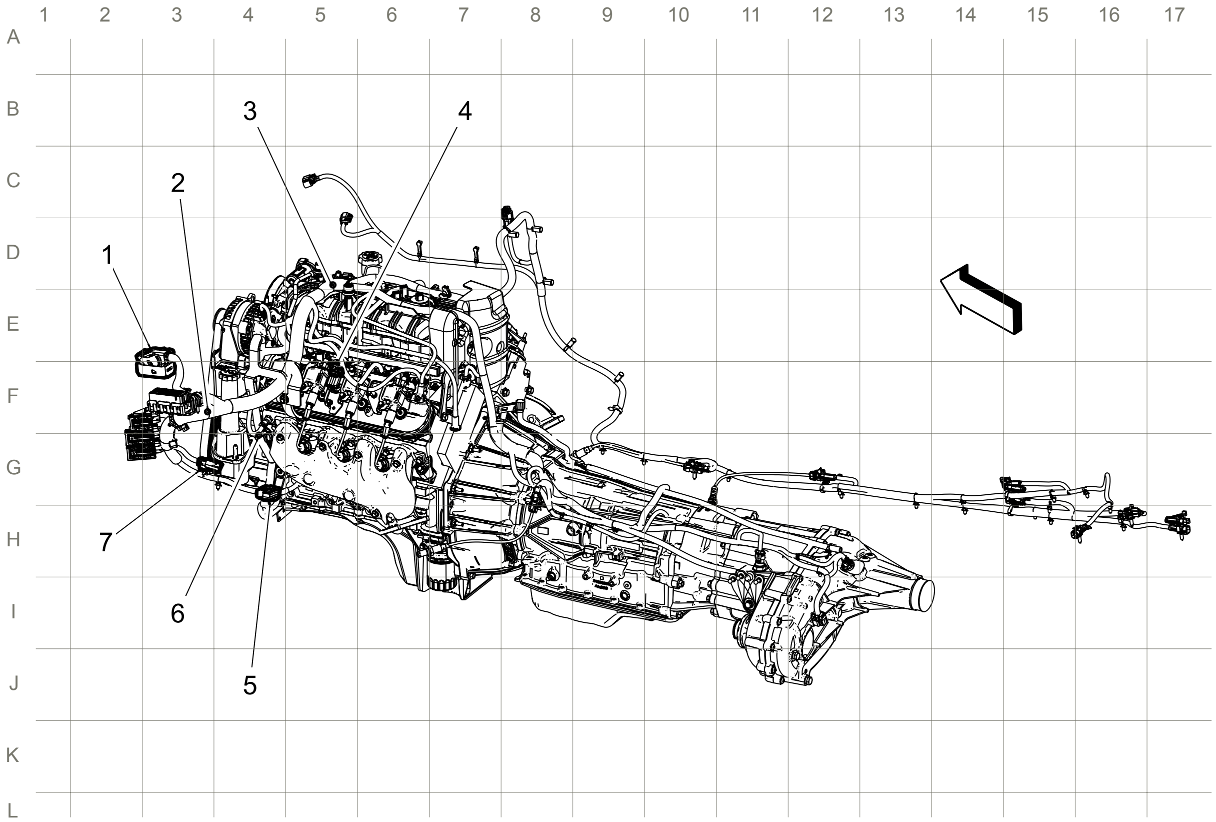
Items

1. X161 (L83 or L86)
2. J161
3. X160 (L83 or L86)
4. X175 (M5U)

Engine Harness Routing - Left Rear (L96)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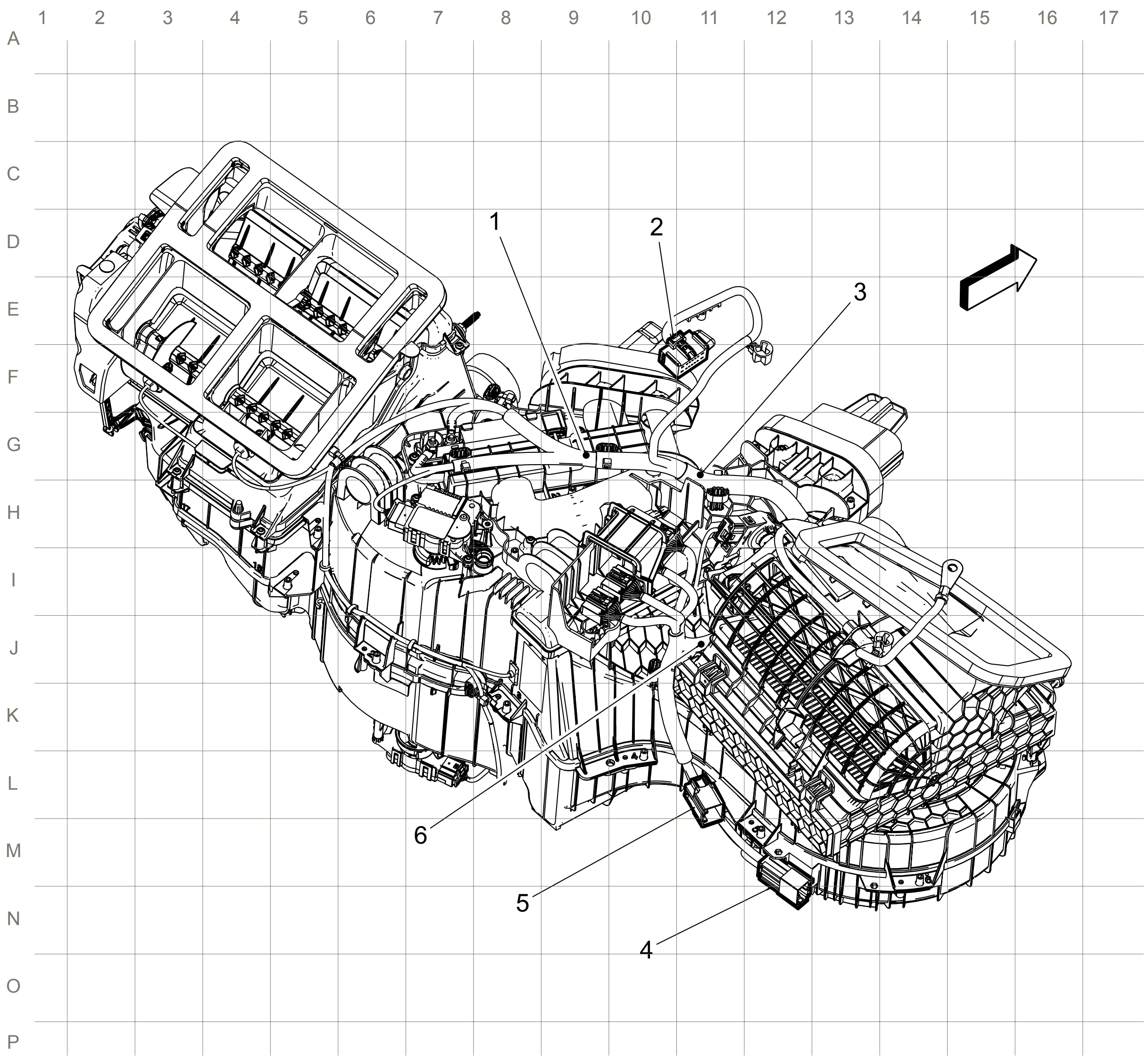
HVAC Assembly Harness Routing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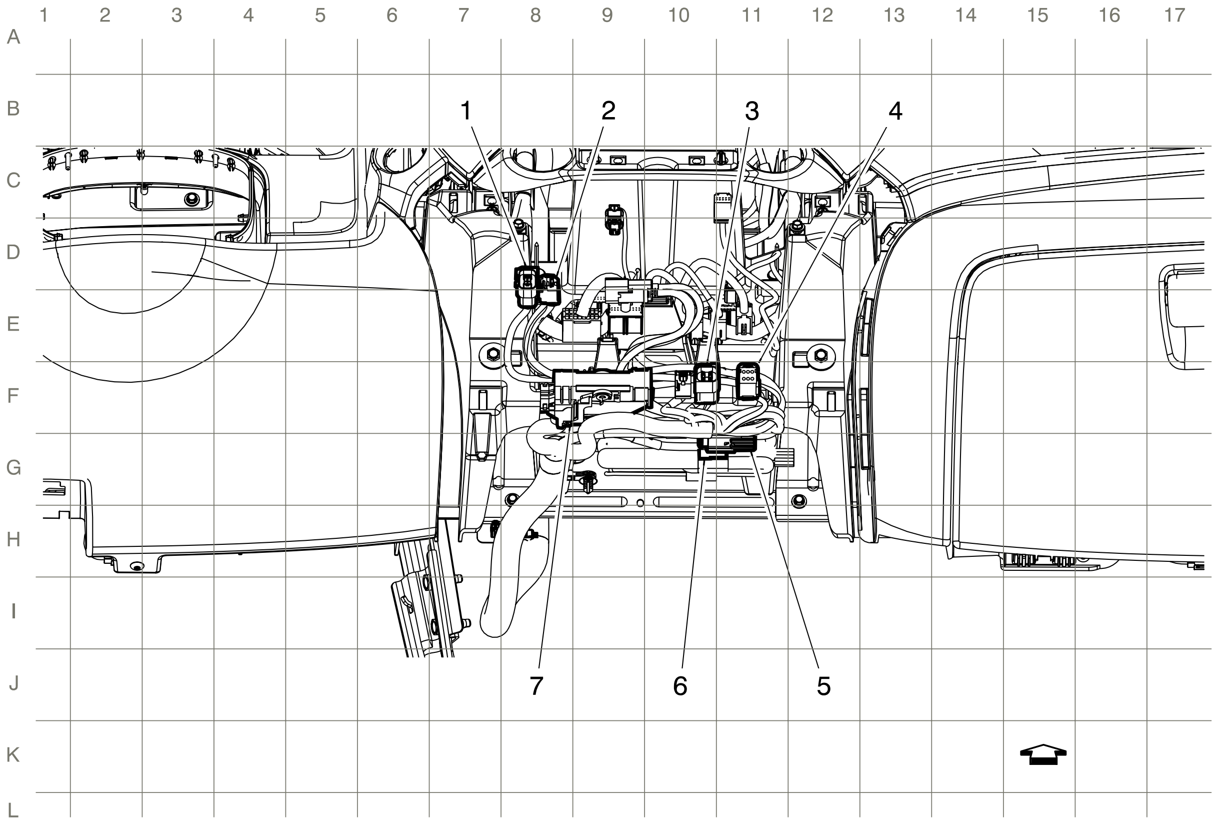
Items

1. J258
2. X215
3. J255
4. X217
5. X216
6. J257

Instrument Panel Harness Routing - Bottom Center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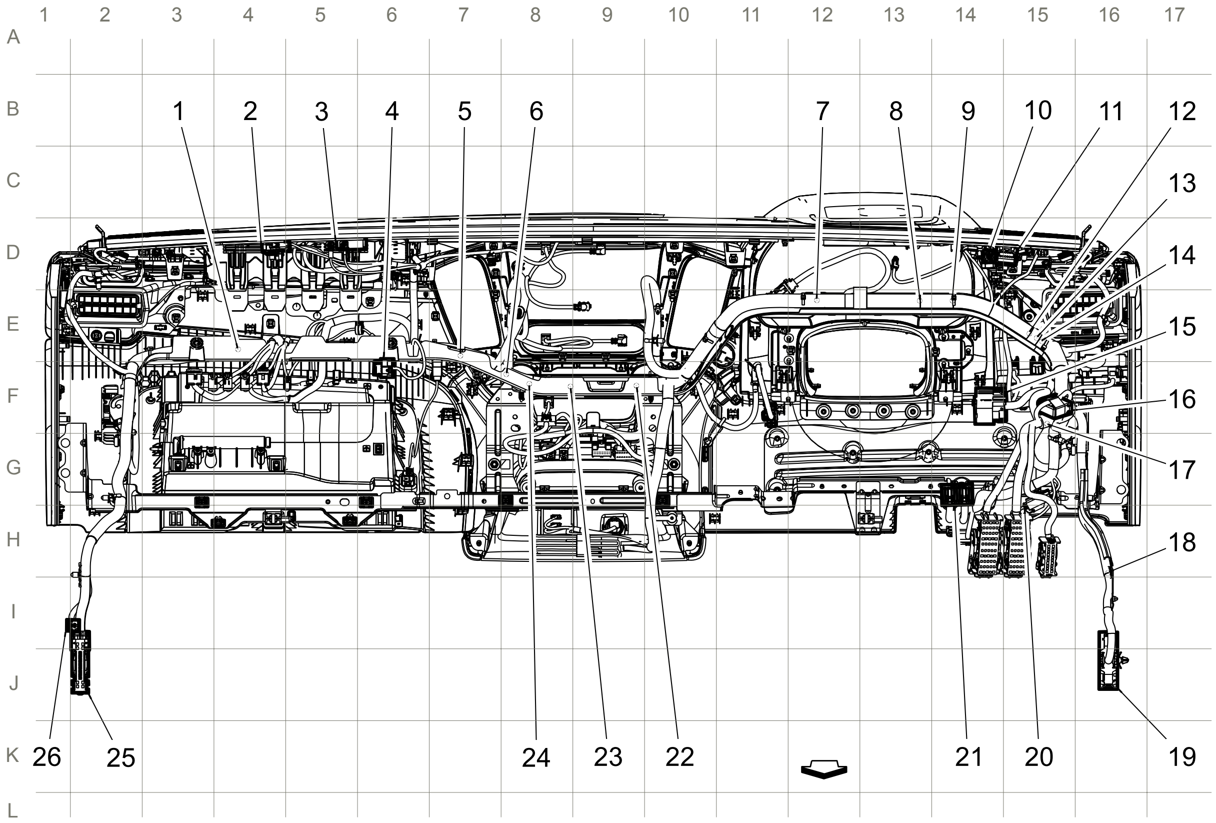
Items

1. X203
2. X204 (U42)
3. X304 (AZ3)
4. X306 (KI4 or KI5 with D07)
5. X271 (WX7)
6. X272 (6J3 or 6J7)
7. X300 (D07)

Instrument Panel Harness Routing - Rear of Instrument Panel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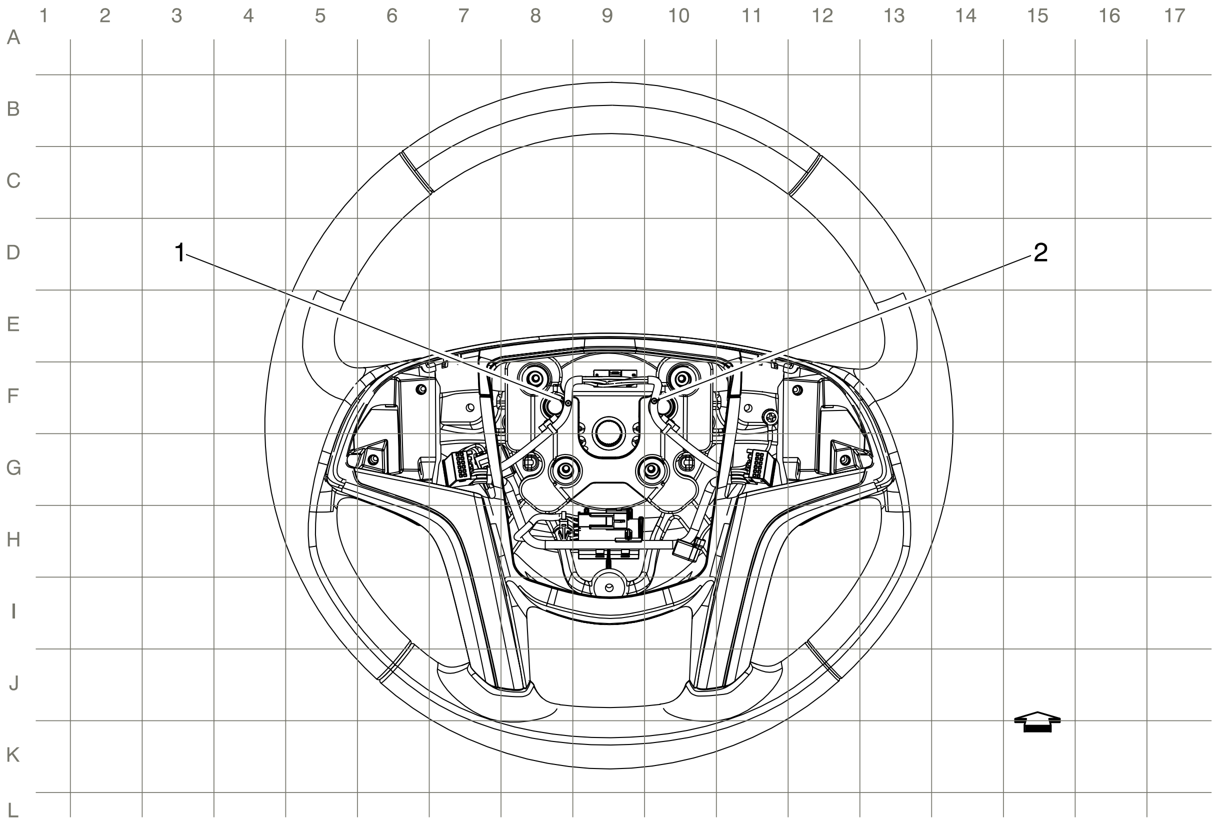
Items

1. J242
2. X222 (UE1)
3. X215
4. X205
5. J250 (IO5 or IO6 or TG5)
6. J260 (IO5 or IO6 with UE1, UEU, UFL, or UHX)
7. J212 (Z75)
8. J211
9. J205
10. X204 (U42)
11. X203
12. J201
13. J200
14. J210
15. X201

16. JX200
17. J208
18. J208
19. X225
20. J294
21. X399
22. J220
23. J249
24. J251
25. X275
26. X238 (AZ3)

Steering Wheel Harness Routing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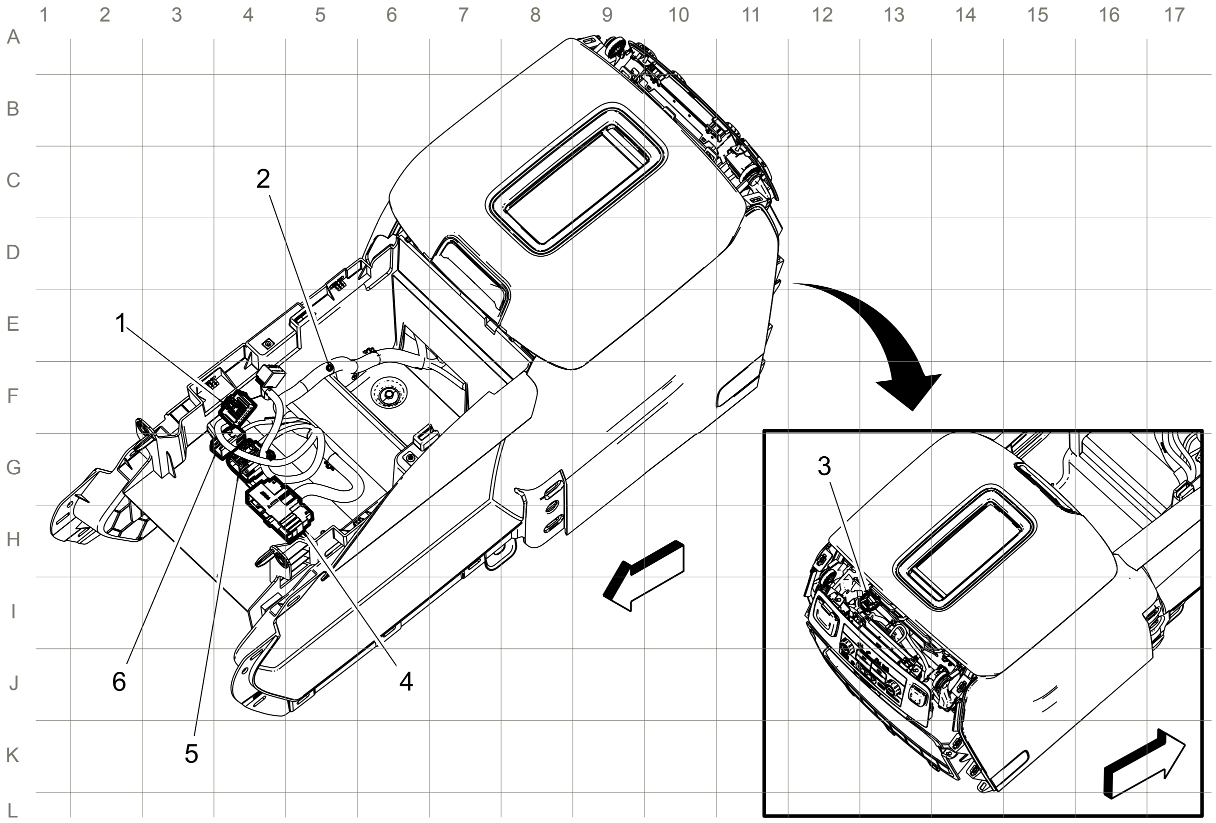
Items

1. J285
2. J295

Floor Console Harness Routing - Top (X88 or Z88)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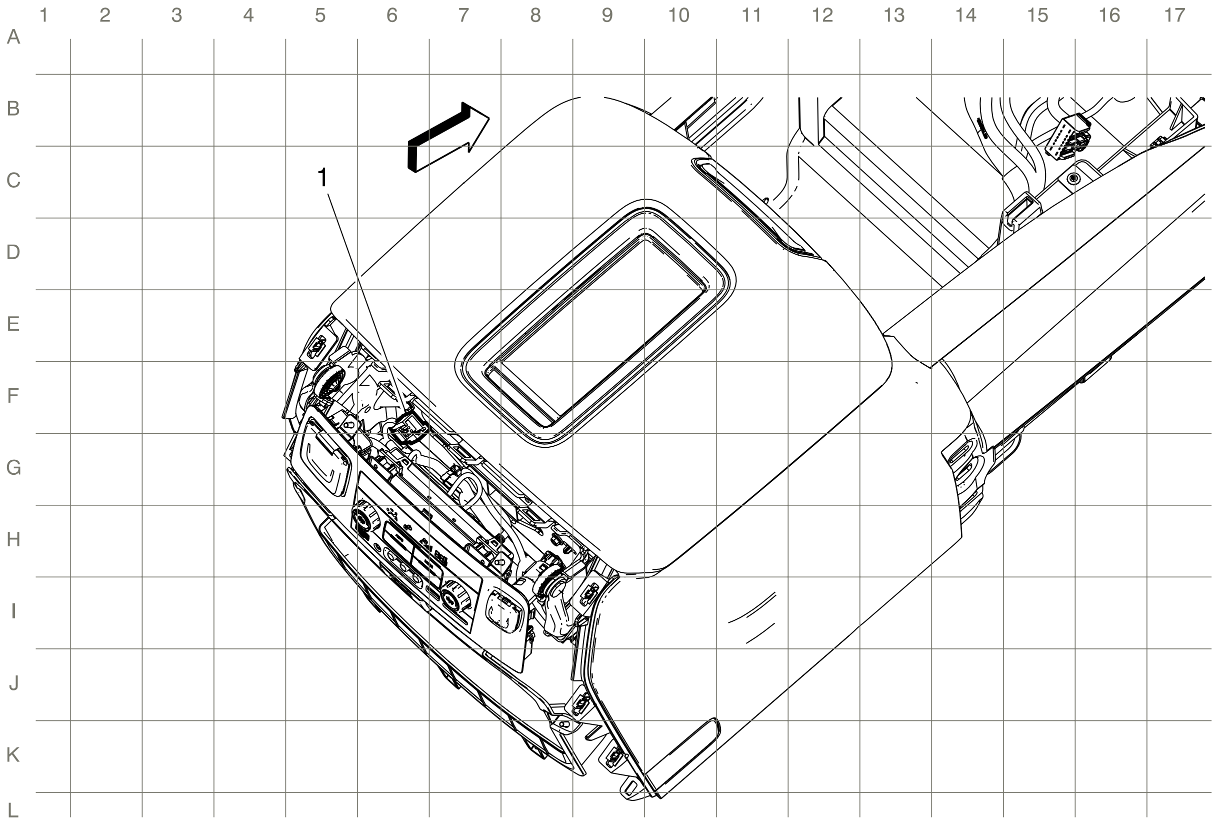
Floor Console Harness Routing - Rear (X88 or Z88)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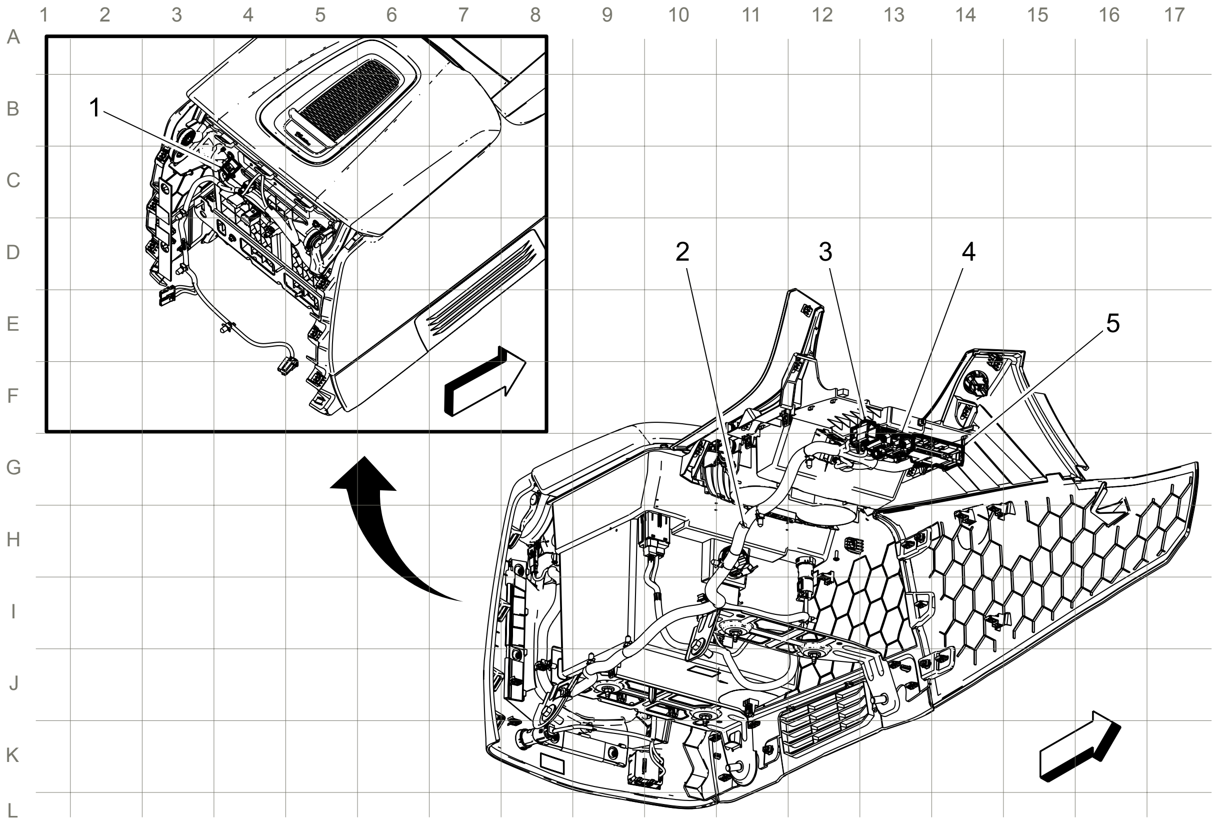
Items

1. X313 (DCK)

Floor Console Harness Routing - Bottom Front (Z75)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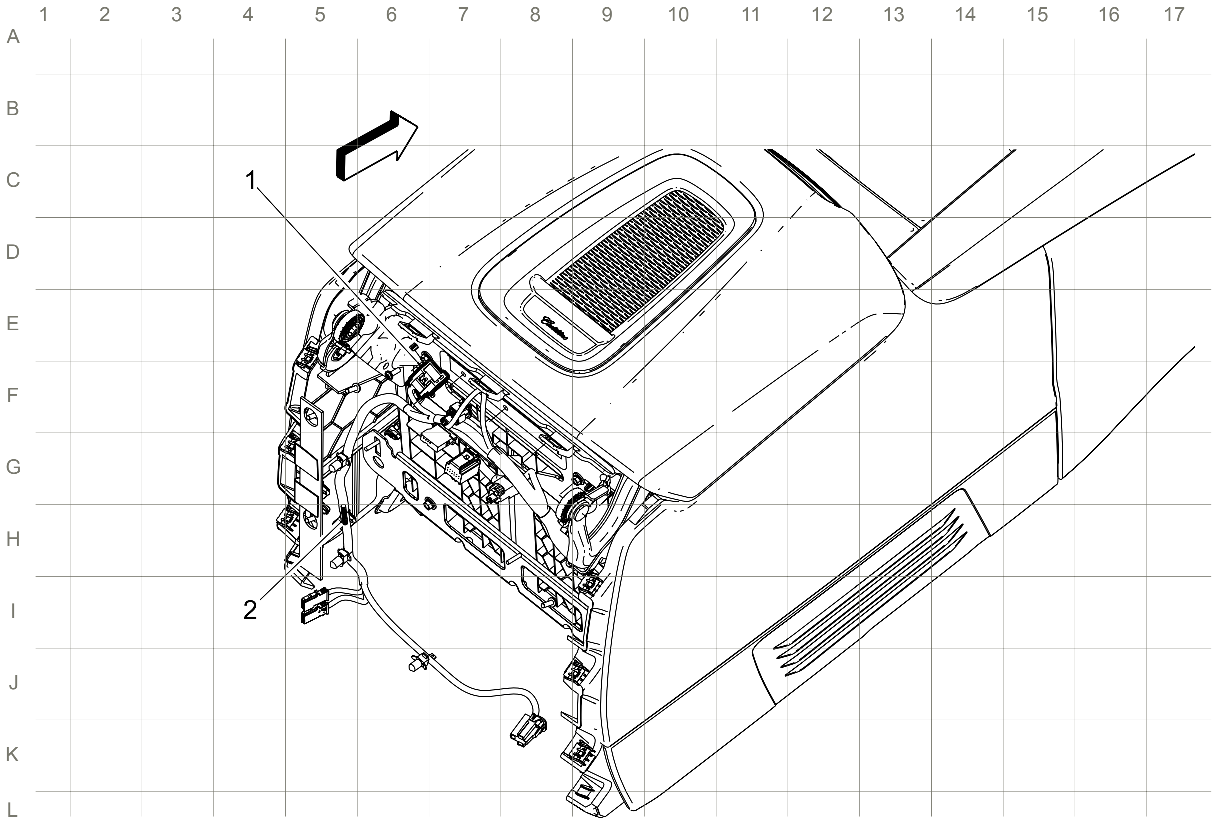
Floor Console Harness Routing - Rear (Z75)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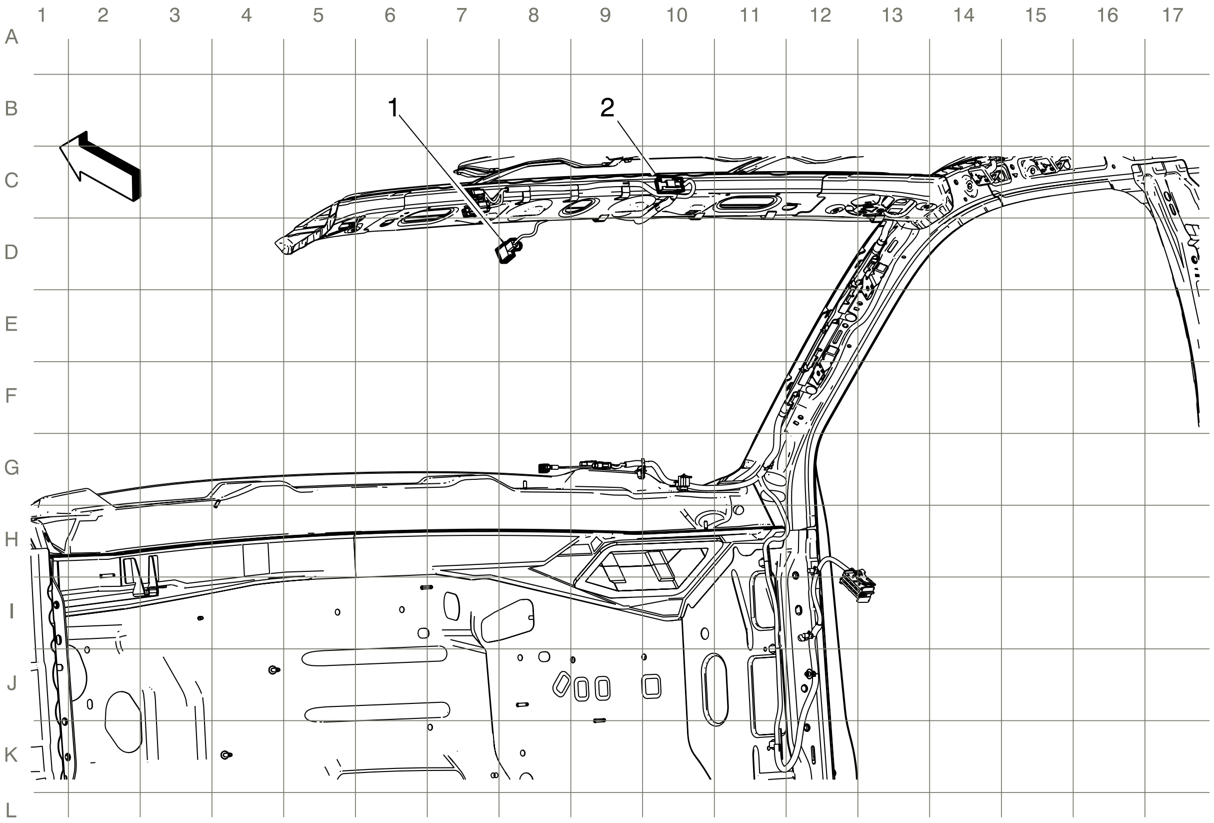
Items

1. X313 (DCK)
2. J341

A-Pillar Harness Routing - Right Passenger Compartment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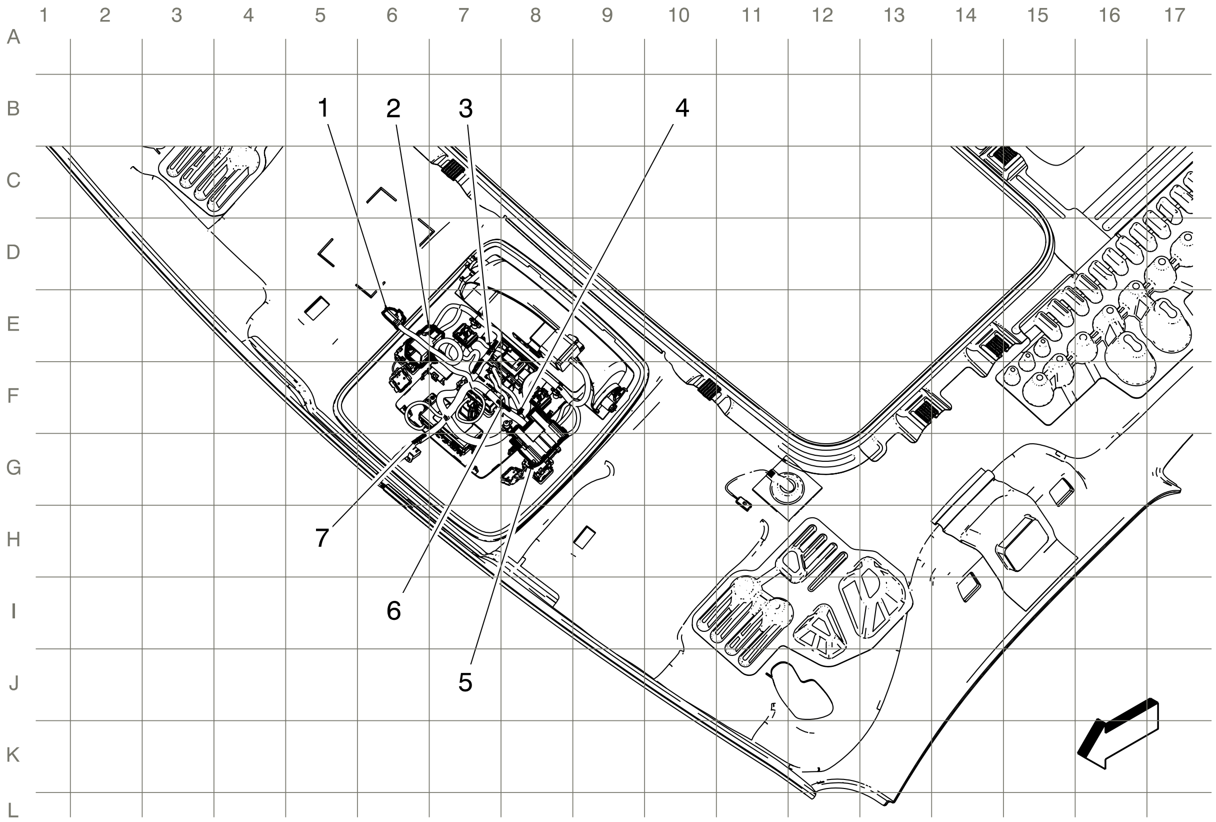
Items

1. X318
2. X319 (CF5 or TRW)

Overhead Console Harness Routing



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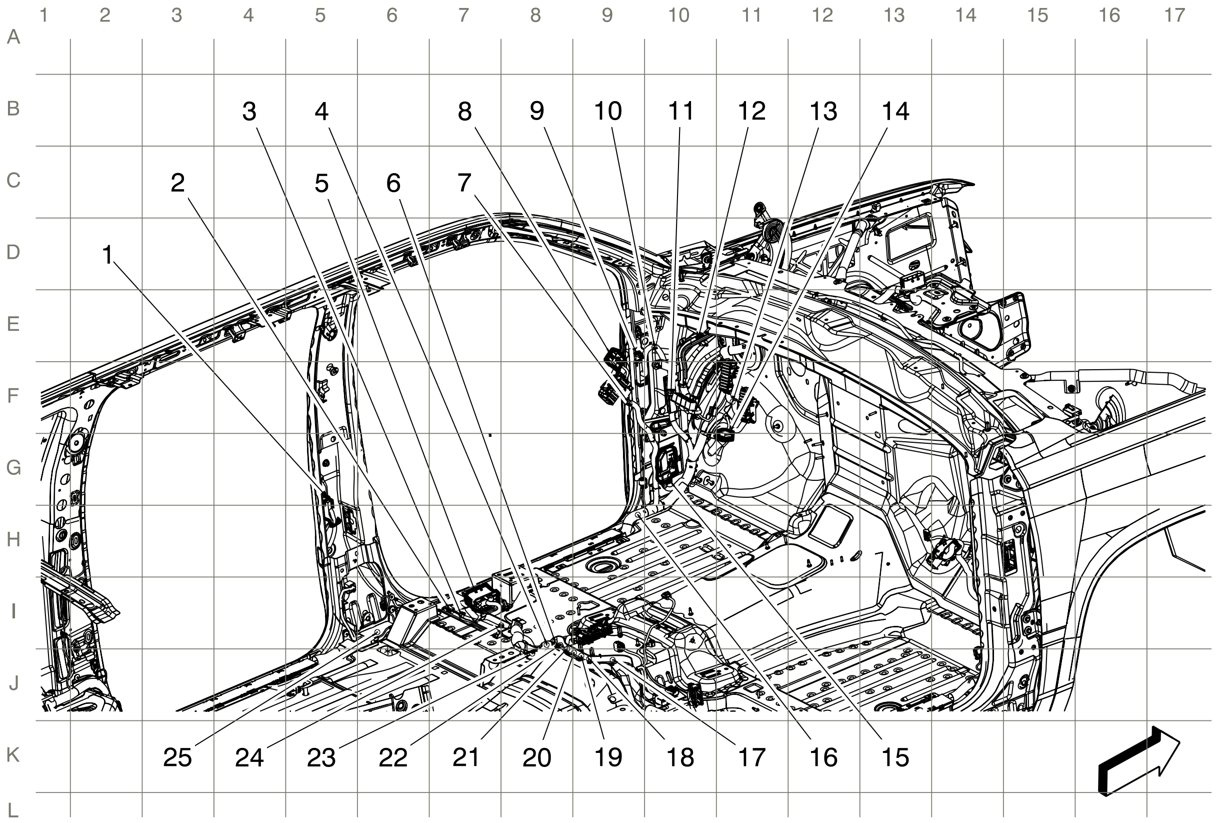
Items

1. X319 (CF5 or TRW)
2. X324 (CF5)
3. J303
4. J302
5. X316
6. J301
7. J333

Body Harness Routing - Left Front of Passenger Compartment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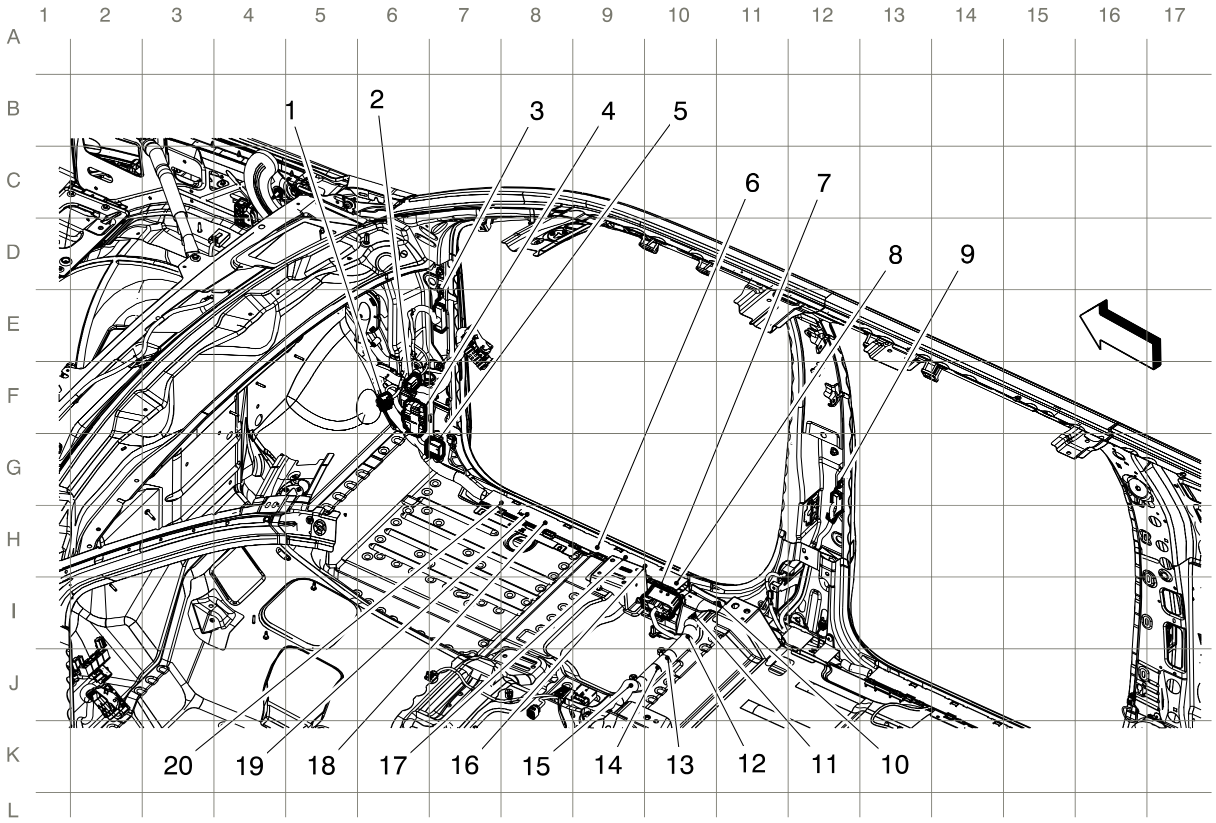
Items

1. X700
2. J330 (BTM or UGN)
3. J331
4. J382 (BRS, DL3, DR4 or HD7)
5. X310
6. J306
7. J308
8. X315 (NKC, UGN or UTT)
9. X500
10. J307 (DL3 or DR4)
11. J304 (Z75)
12. J289
13. J309 (JL1, NP0 or NQH)
14. X119
15. X225

16. J310 (UTT)
17. J350
18. J384
19. J385 (ULT)
20. J379 (DL3, DL8 or DR4)
21. J386
22. J383
23. J361
24. J334 (UGN with Z75)
25. J353

Body Harness Routing - Right Front of Passenger Compartment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Items

1. X216
2. X217
3. X600
4. X275
5. JX300
6. J369
7. X320
8. J370 (KA1, KA6 or UTT)
9. X800
10. J362 (AZ3, AX7, ATN, ATT, KA6 or Z75)
11. J364 (Z75)
12. J373 (UTT)
13. J372 (A45)
14. J371
15. J322 (without SWB or Z75)

16. J360

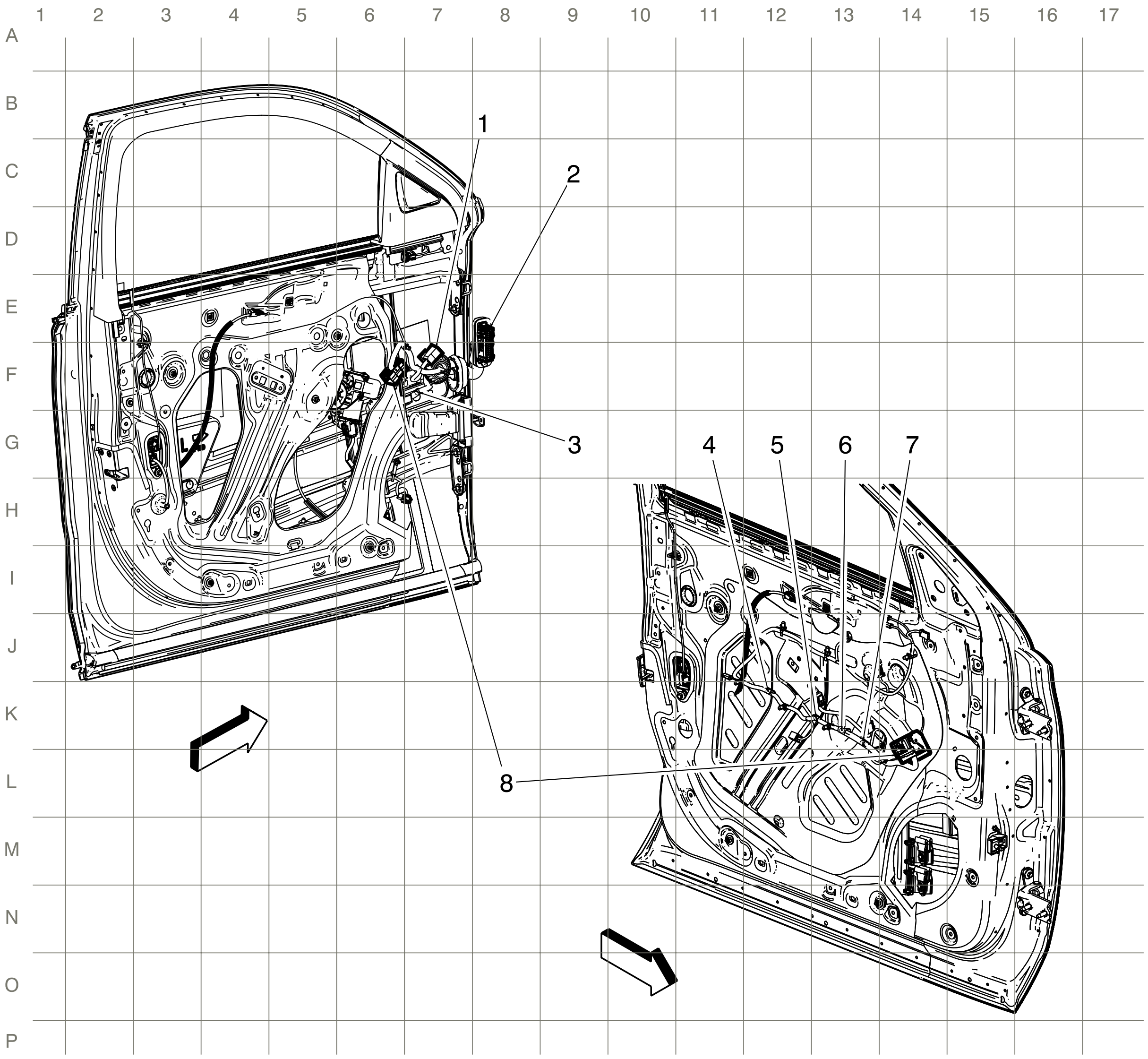
17. J363

18. J368

19. J365

20. J367 (DL3 or DR4)

Driver Door Harness Routing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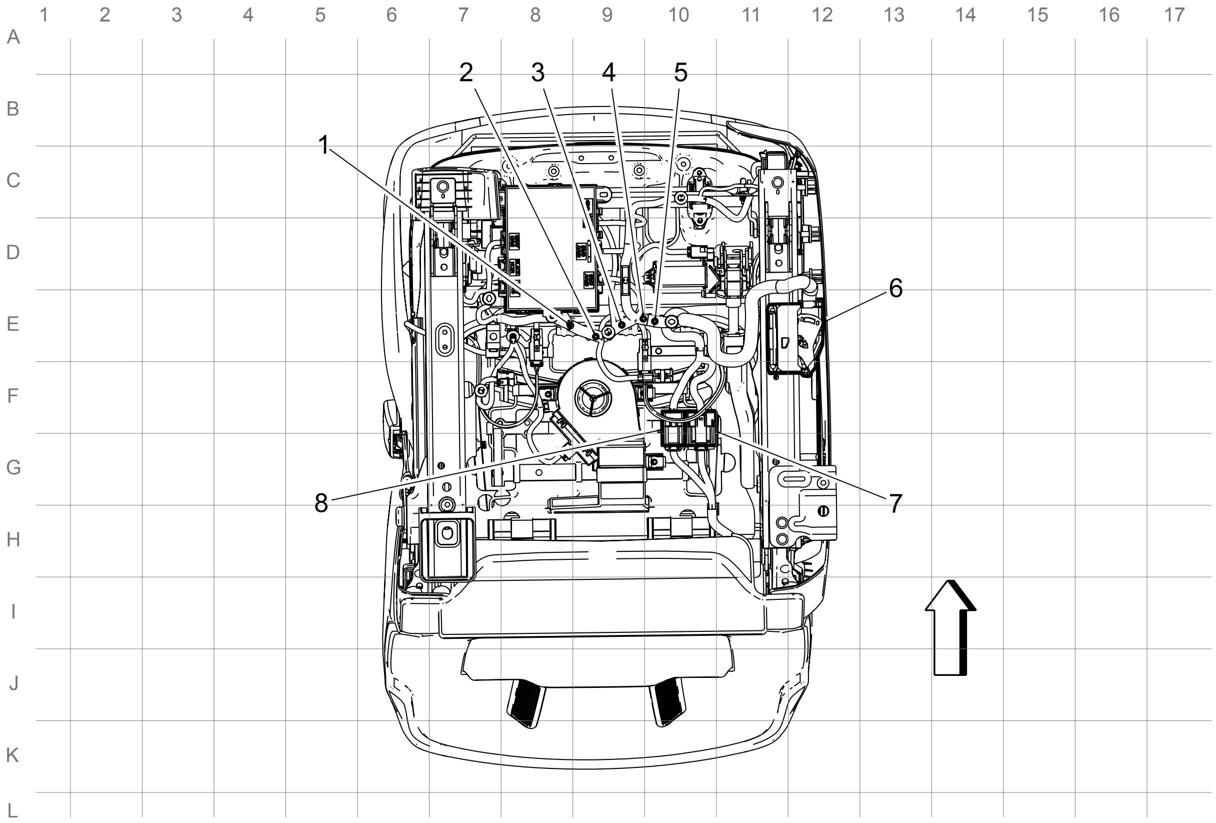
Items

1. X510
2. X500
3. J515
4. J520 (Z75)
5. J518 (Z75)
6. J519
7. J516
8. X505

Driver Seat Harness Routing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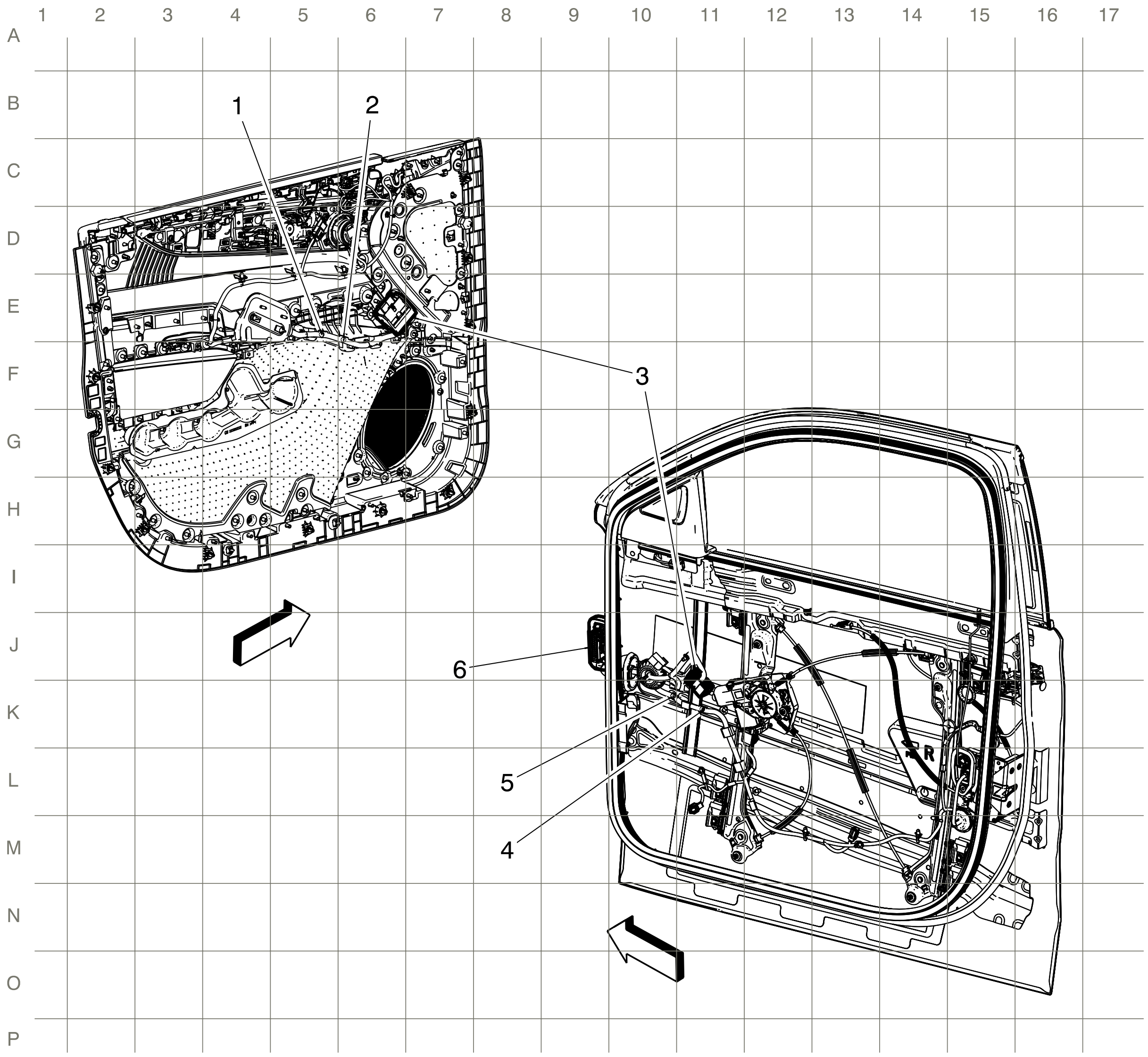
Passenger Door Harness Routing



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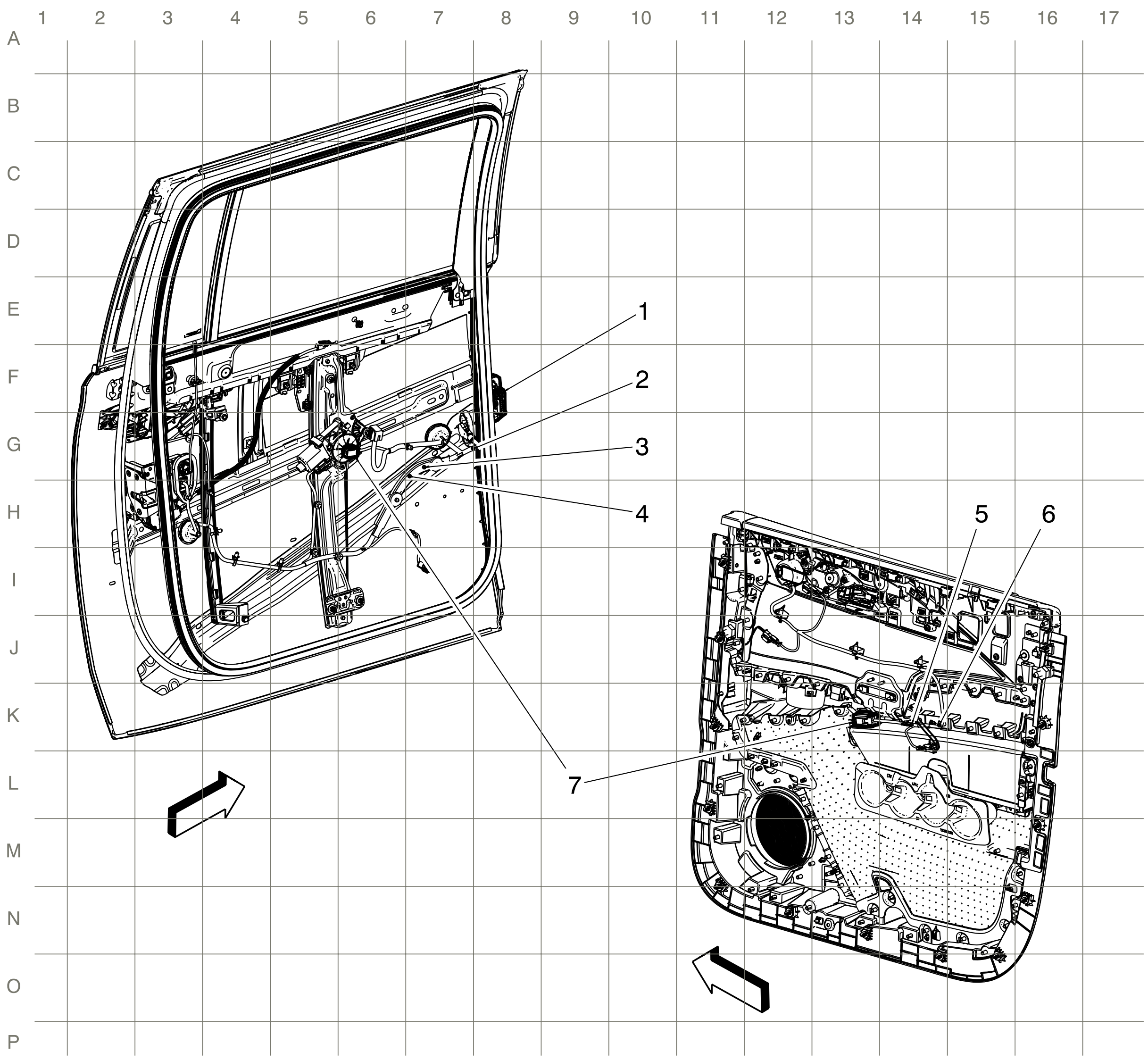
Items

1. J620 (Z75)
2. J616
3. X605
4. J611 (HD7)
5. J615
6. X600

Left Rear Door Harness Routing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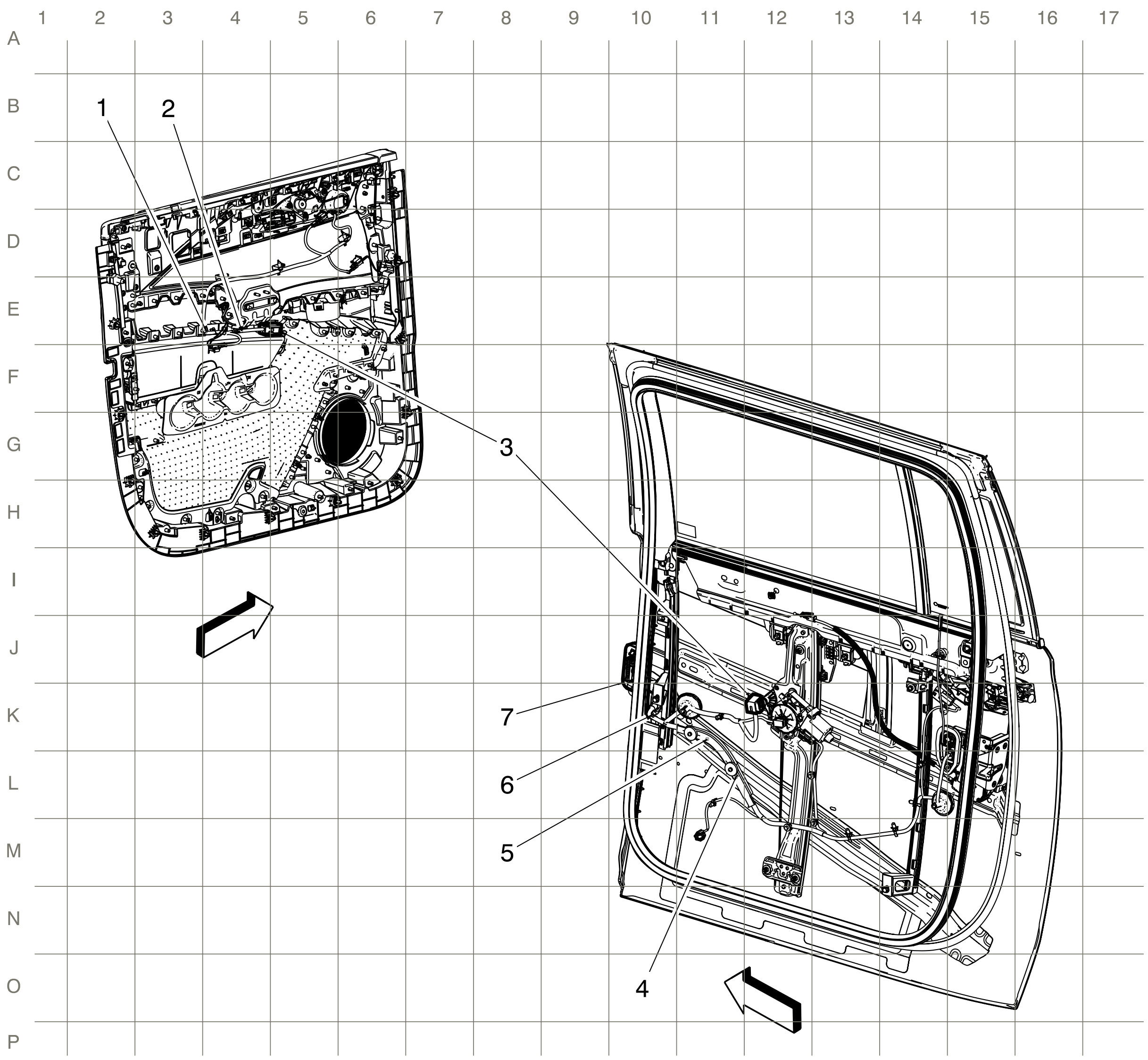
Items

1. X700
2. J715
3. J710 (UQH)
4. J711 (UQH)
5. J116 (Z75)
6. J720 (Z75)
7. X705 (Z75)

Right Rear Door Harness Routing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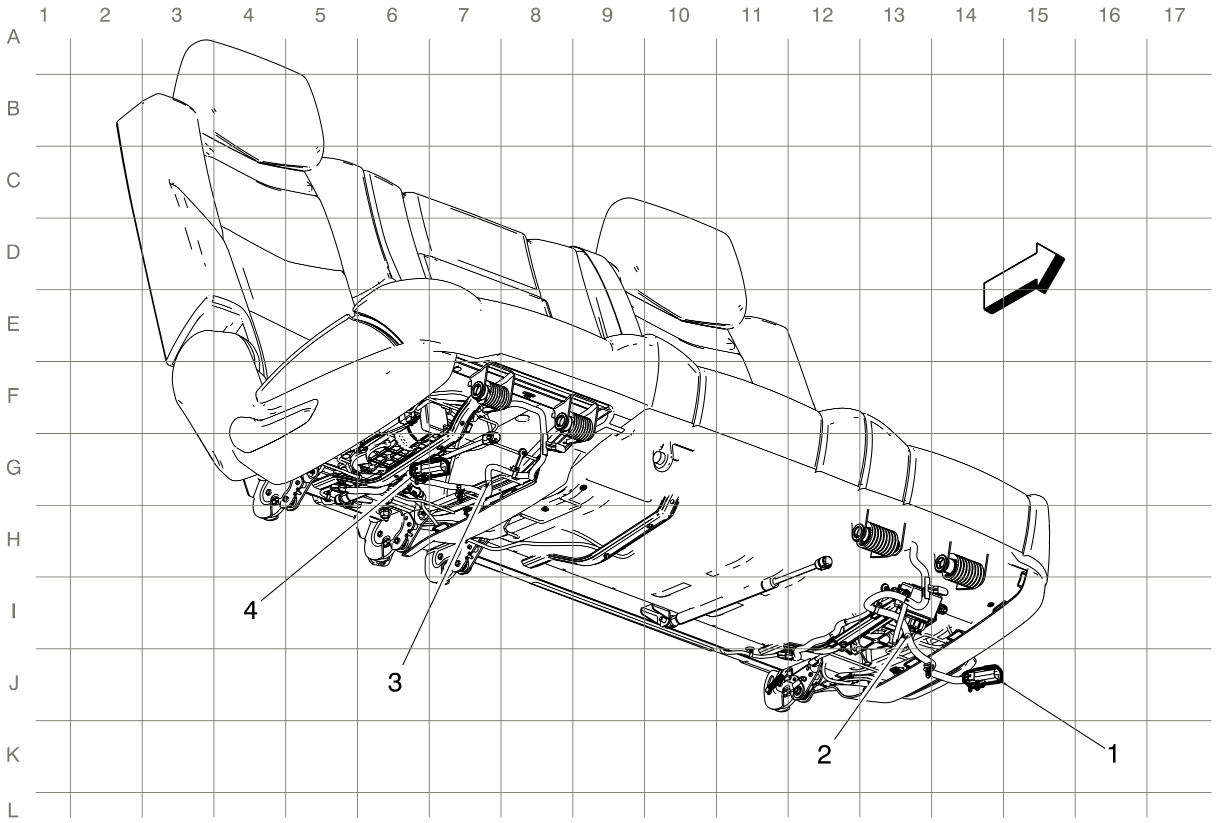
Items

1. J820 (Z75)
2. J816 (Z75)
3. X805 (Z75)
4. J811 (UQH)
5. J810 (UQH)
6. J815
7. X800

Second Row Seat Harness Routing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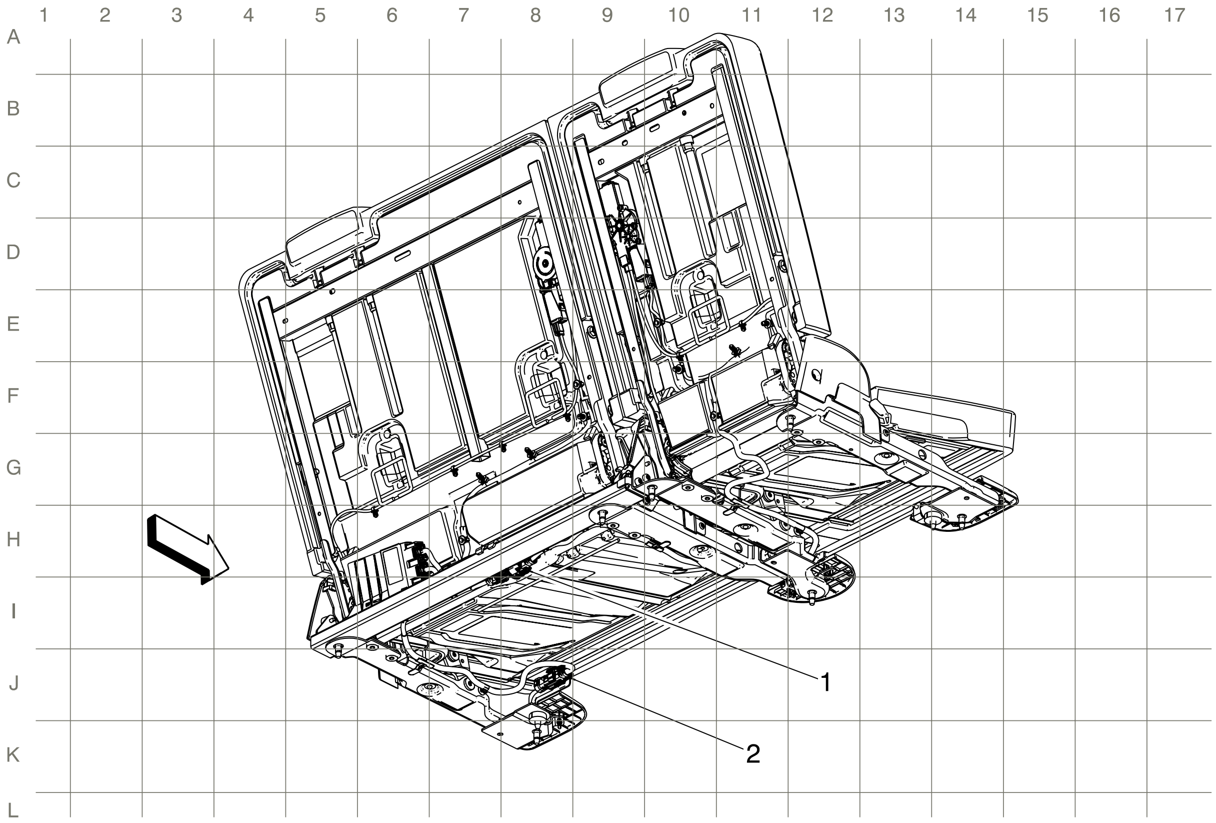
Items

1. X308 (ATN, ATT or KA6)
2. J357 (ATN or ATT with KA6)
3. J366 (ATN or ATT with KA6)
4. X378 (ATN or ATT)

Third Row Seat Harness Routing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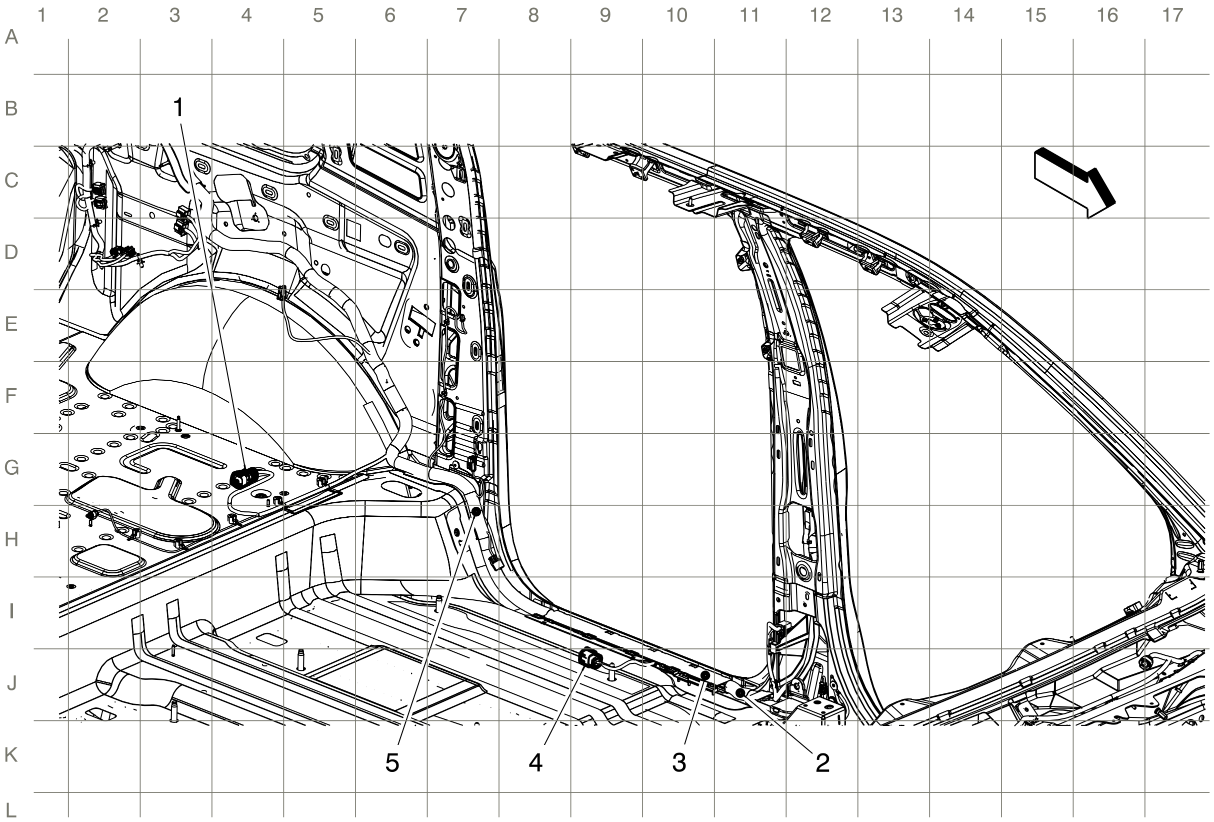
Items

1. X340 (AS8)
2. X338 (AS8)

Body Harness Routing - Left Middle of Passenger Compartment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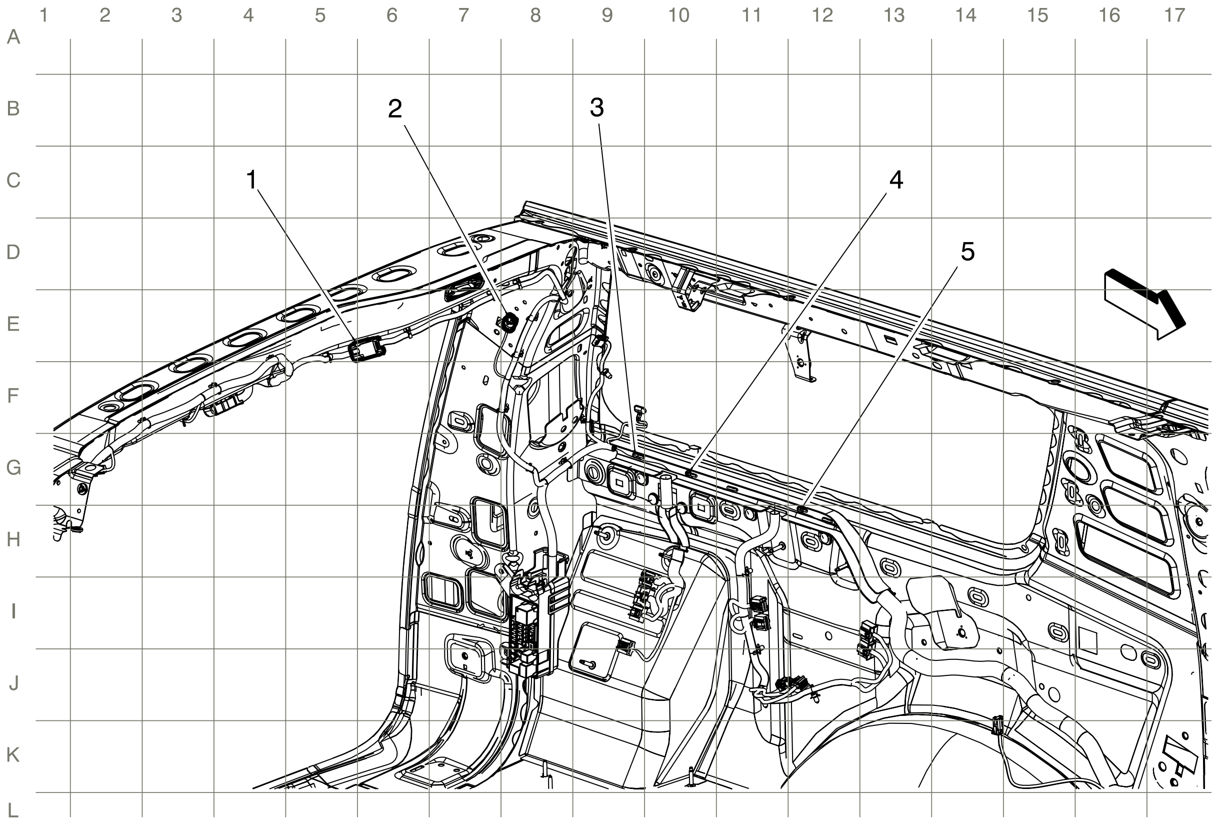
Items

1. X338 (AS8)
2. J351 (BTM)
3. J352 (ATN or ATT)
4. X308 (ATN, ATT or KA6)
5. J354

Body Harness Routing - Left Rear of Passenger Compartment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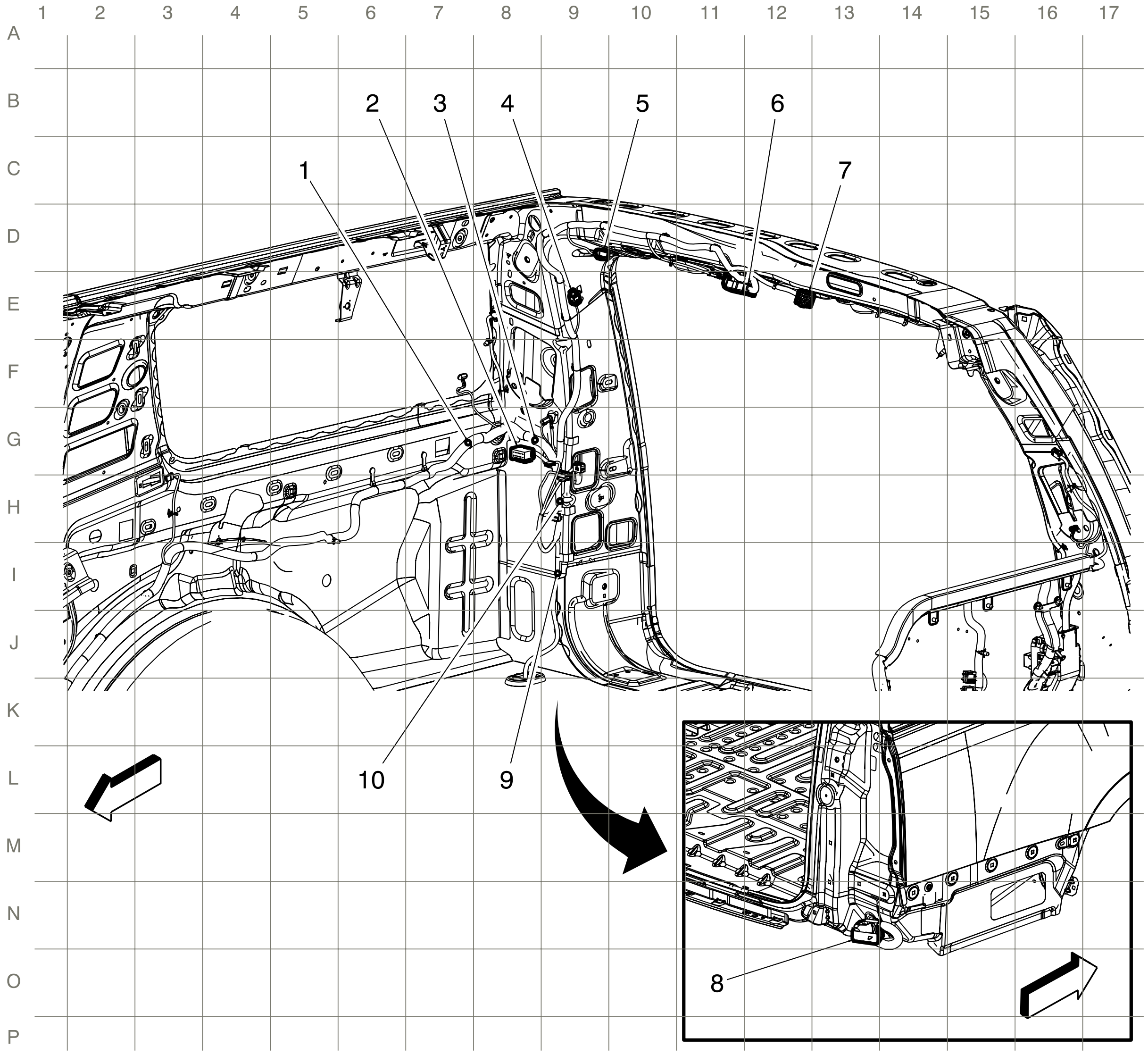
Items

1. X490
2. X380
3. J462 (UQS)
4. J461 (UQS)
5. J460 (ATN or ATT)

Body Harness Routing - Right Rear of Passenger Compartment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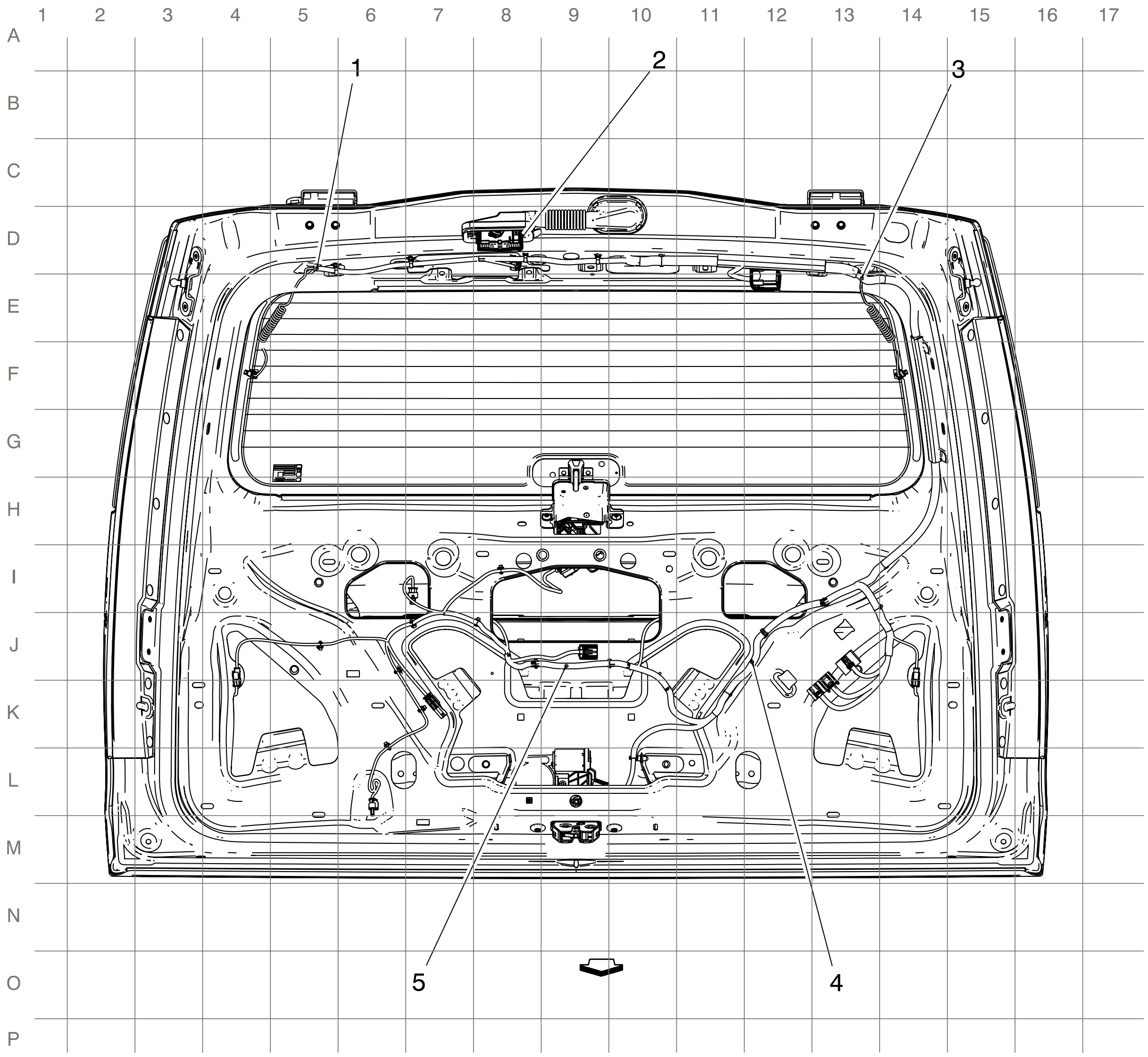
Items

1. J402
2. X487
3. J403 (K59, TC2, UEU, UFL UHX, UGN or UKC)
4. X390
5. X486 (without SWB)
6. X900
7. X490
8. X495
9. J401 (ATN or ATT)
10. J404 (ATT or ATN)

Liftgate Harness Routing



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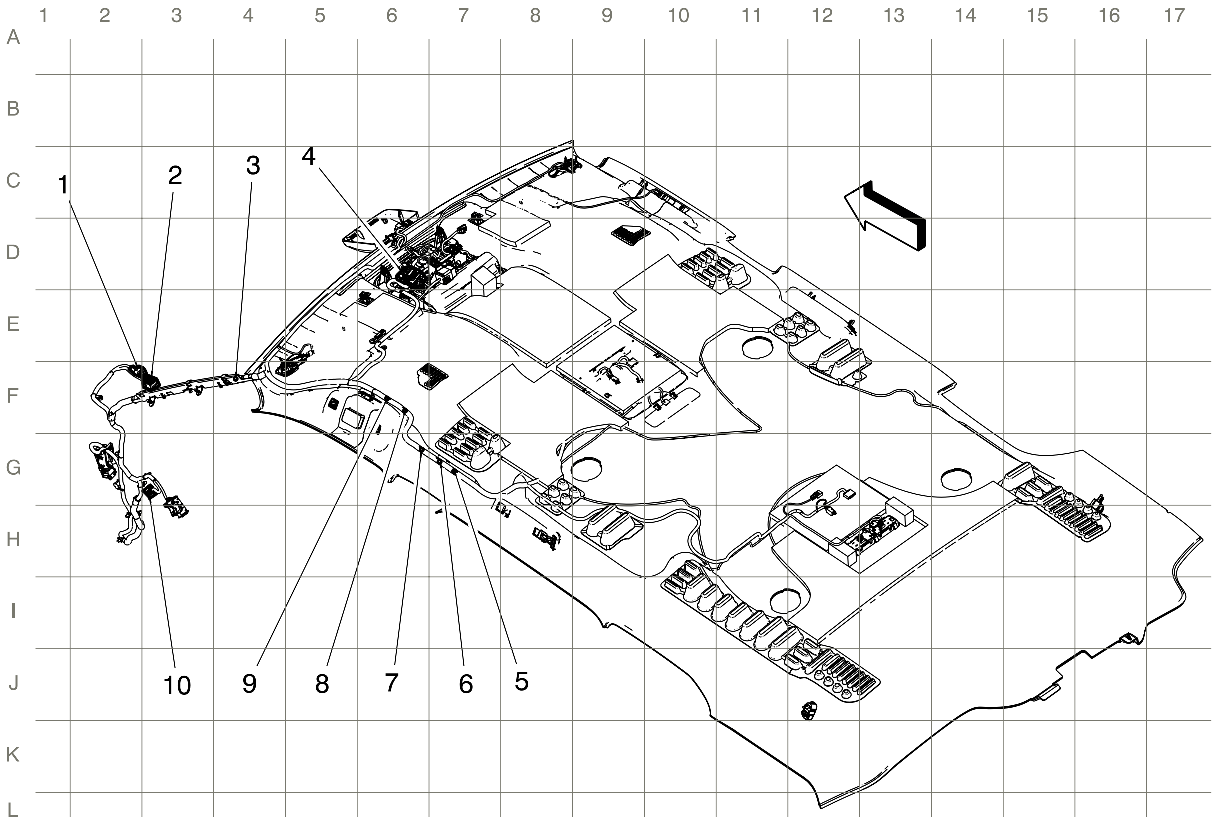
2
3
4
5

Items

1. J901
2. X900
3. J902
4. J903 (TB5 or TC2)
5. J904

Headliner Harness Routing


1
2
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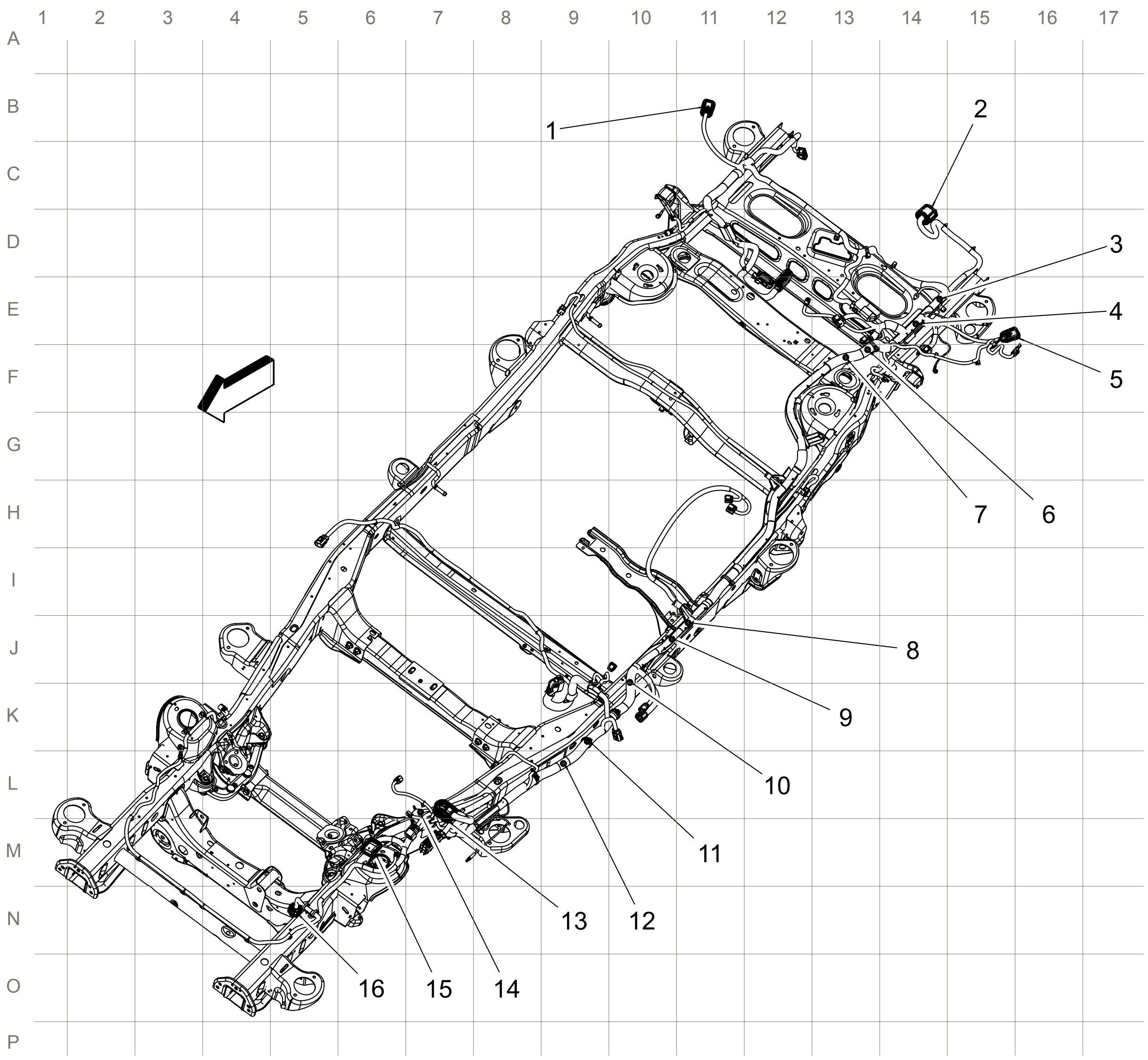
9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
10
9
8
7
6
5

Items

1. X204 (U42)
2. X203
3. J319 (DNU or U42)
4. X316
5. J332
6. J312
7. J320 (AZ3)
8. J313
9. J311
10. X315 (NKC, UGN or UTT)

Chassis Harness Routing


1
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16
17
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
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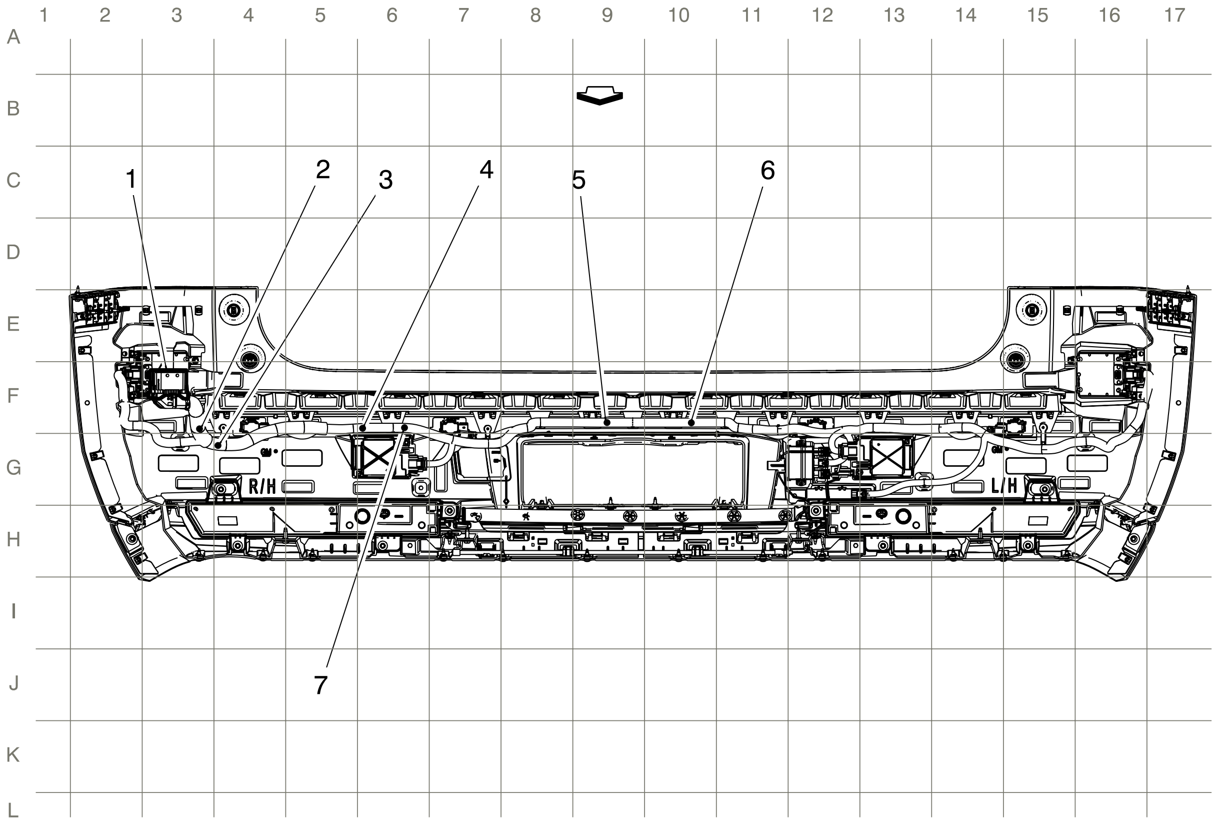
11
12
13
14
15
16

Rear Bumper Harness Routing (Z75)


1
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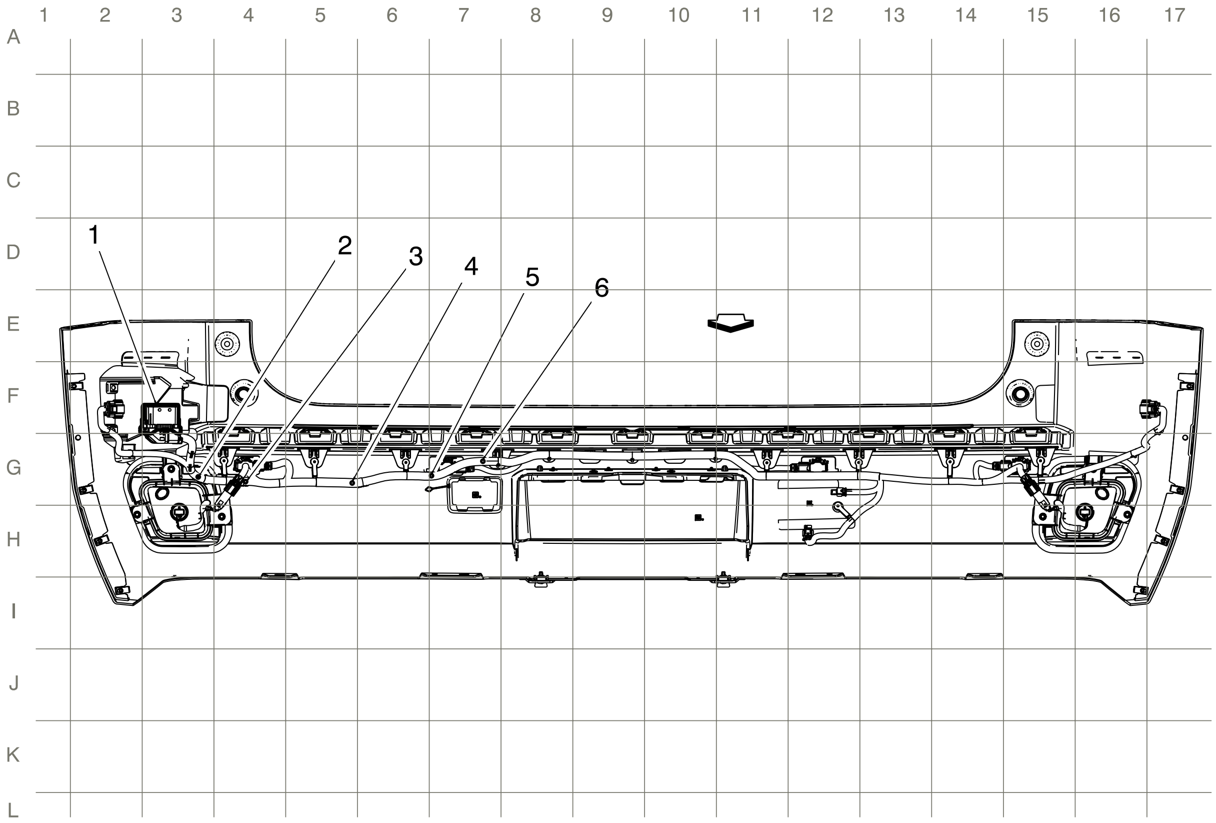
7
8
9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
K
L
R/H
L/H

Items

1. X495
2. J499 (T79, UKC or UGN with Z75)
3. J490 (UD5 or UD7)
4. J494 (Z75 with UGN)
5. J495 (UD5 or UD7)
6. J498 (UKC)
7. J493 (T79)

Rear Bumper Harness Routing (X88 or Z88)


1
2
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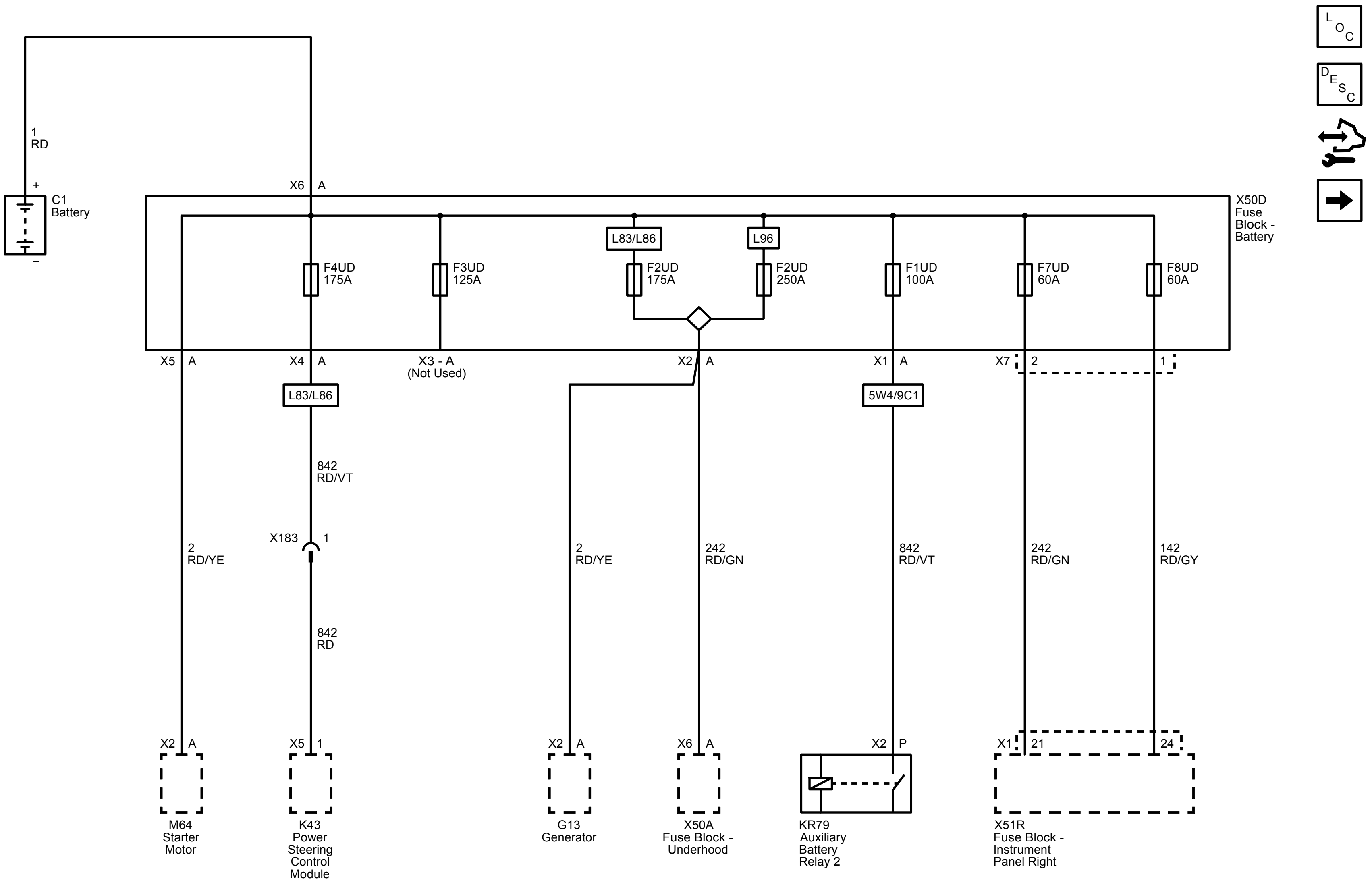
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
6

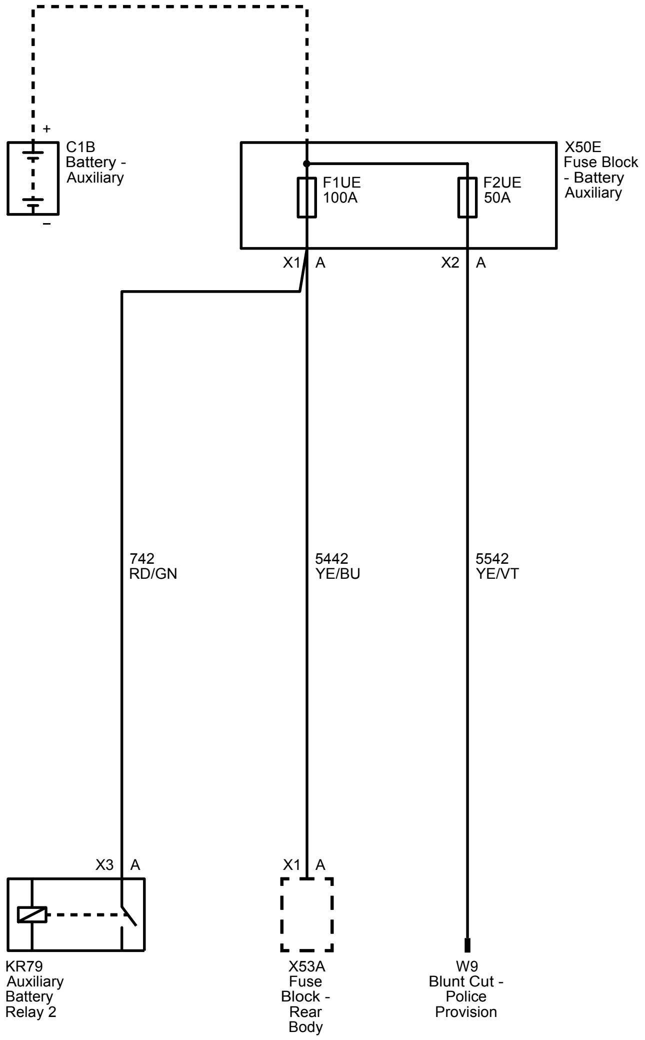
Items

1. X495
2. J490 (UD5 or UD7)
3. J495 (UD5 or UD7)
4. J499 (T79, UKC or UGN with Z75)
5. J493 (T79)
6. J498 (UKC)

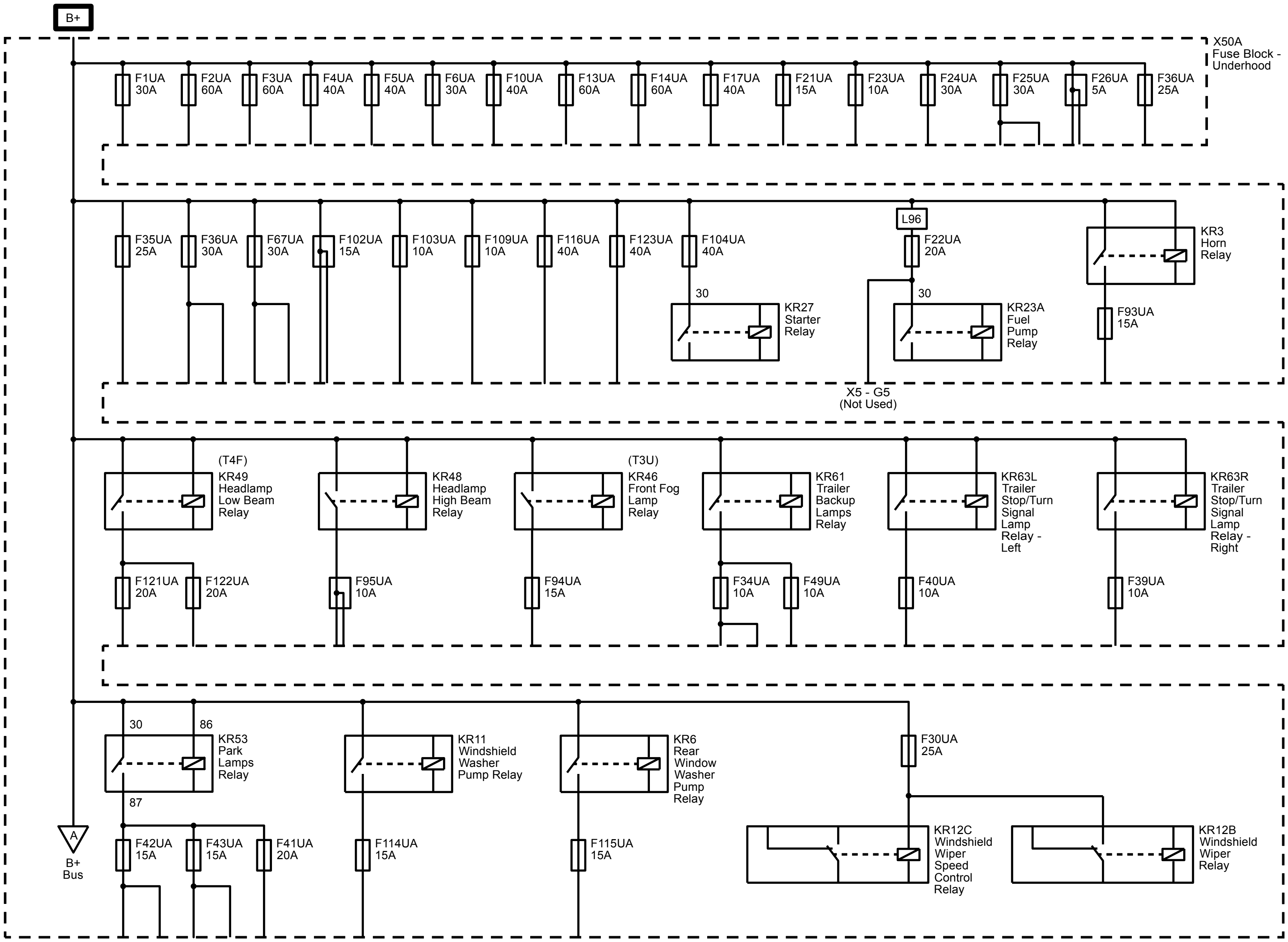
X50D Fuse Block - Battery

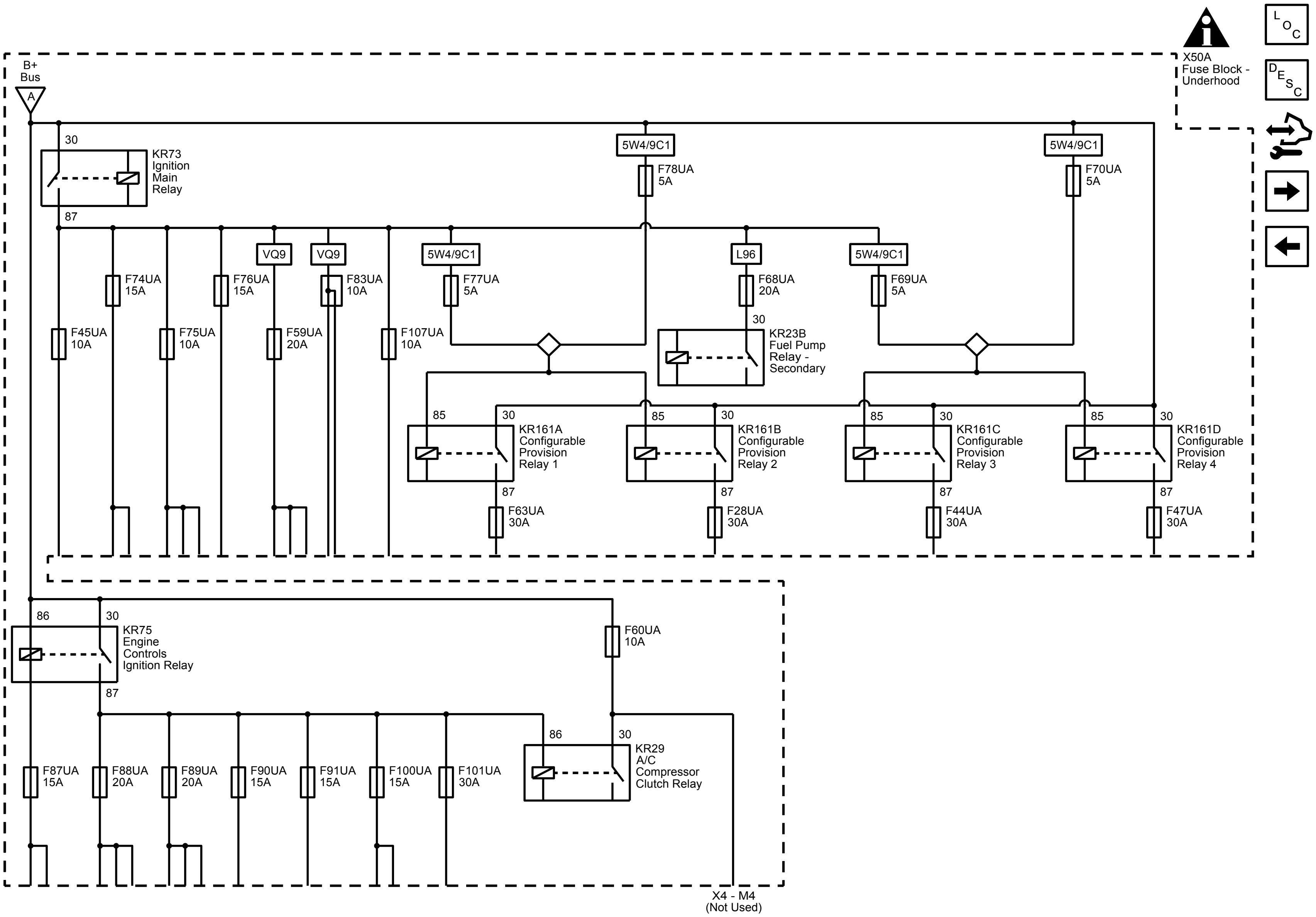

1
RD
+
C1
Battery
−
X6 A
X50D
Fuse
Block -
Battery
L83/L86
L96
F4UD
175A
F3UD
125A
F2UD
175A
F2UD
250A
F1UD
100A
F7UD
60A
F8UD
60A
X5 A
X4 A
X3 - A
(Not Used)
X2 A
X1 A
X7 2
1
L83/L86
5W4/9C1
842
RD/VT
X183 1
842
RD
2
RD/YE
2
RD/YE
242
RD/GN
842
RD/VT
242
RD/GN
142
RD/GY
X2 A
X5 1
X2 A
X6 A
X2 P
X1 21
24
M64
Starter
Motor
K43
Power
Steering
Control
Module
G13
Generator
X50A
Fuse Block -
Underhood
KR79
Auxiliary
Battery
Relay 2
X51R
Fuse Block -
Instrument
Panel Right
LOC
DESC

X50E Fuse Block - Battery Auxiliary (5W4 or 9C1)

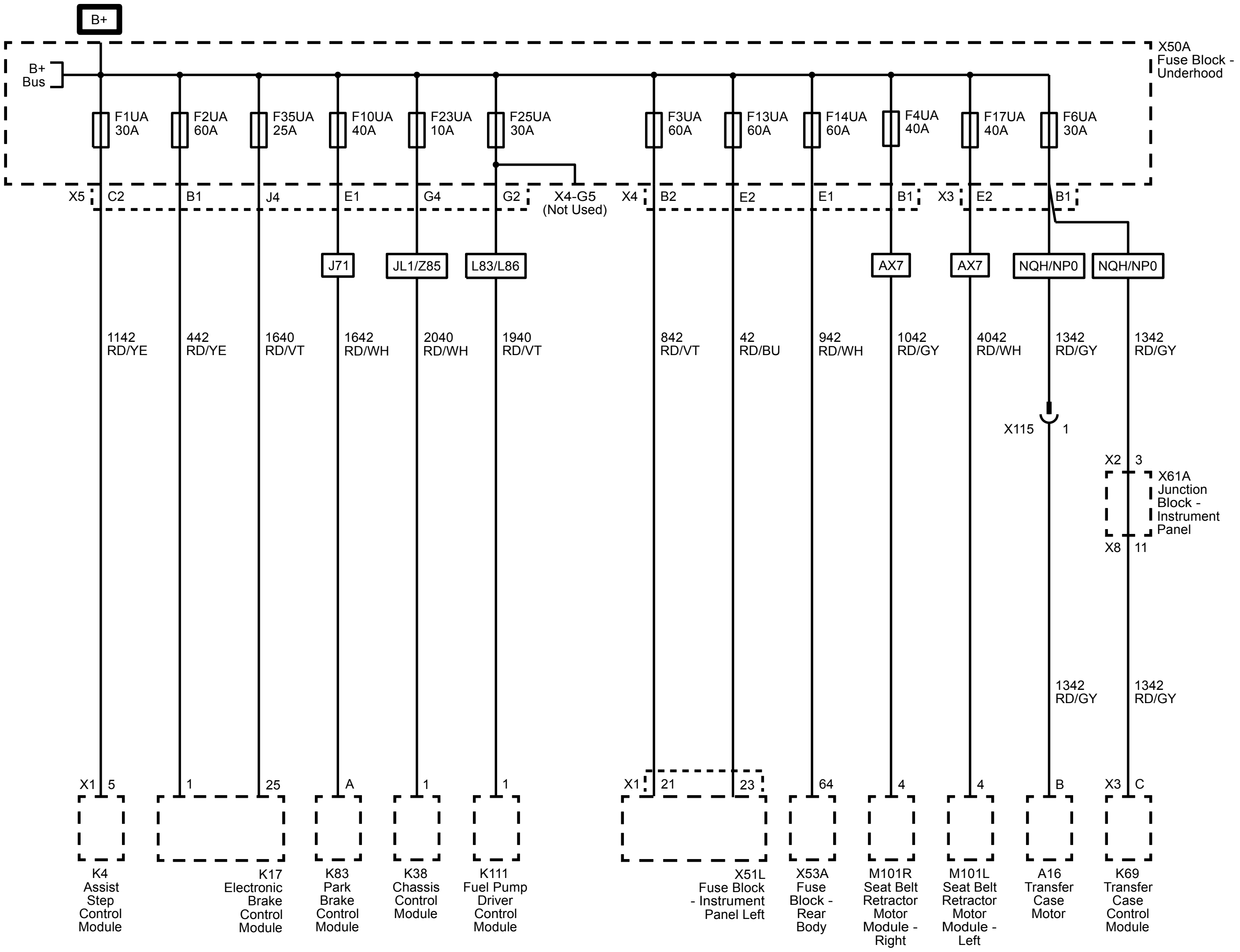

+
C1B
Battery -
Auxiliary
−
F1UE
100A
F2UE
50A
X50E
Fuse Block
- Battery
Auxiliary
X1 A
X2 A
742
RD/GN
5442
YE/BU
5542
YE/VT
X3 A
X1 A
KR79
Auxiliary
Battery
Relay 2
X53A
Fuse
Block -
Rear
Body
W9
Blunt Cut -
Police
Provision

B+ Bus X50A Fuse Block - Underhood (1 of 2)

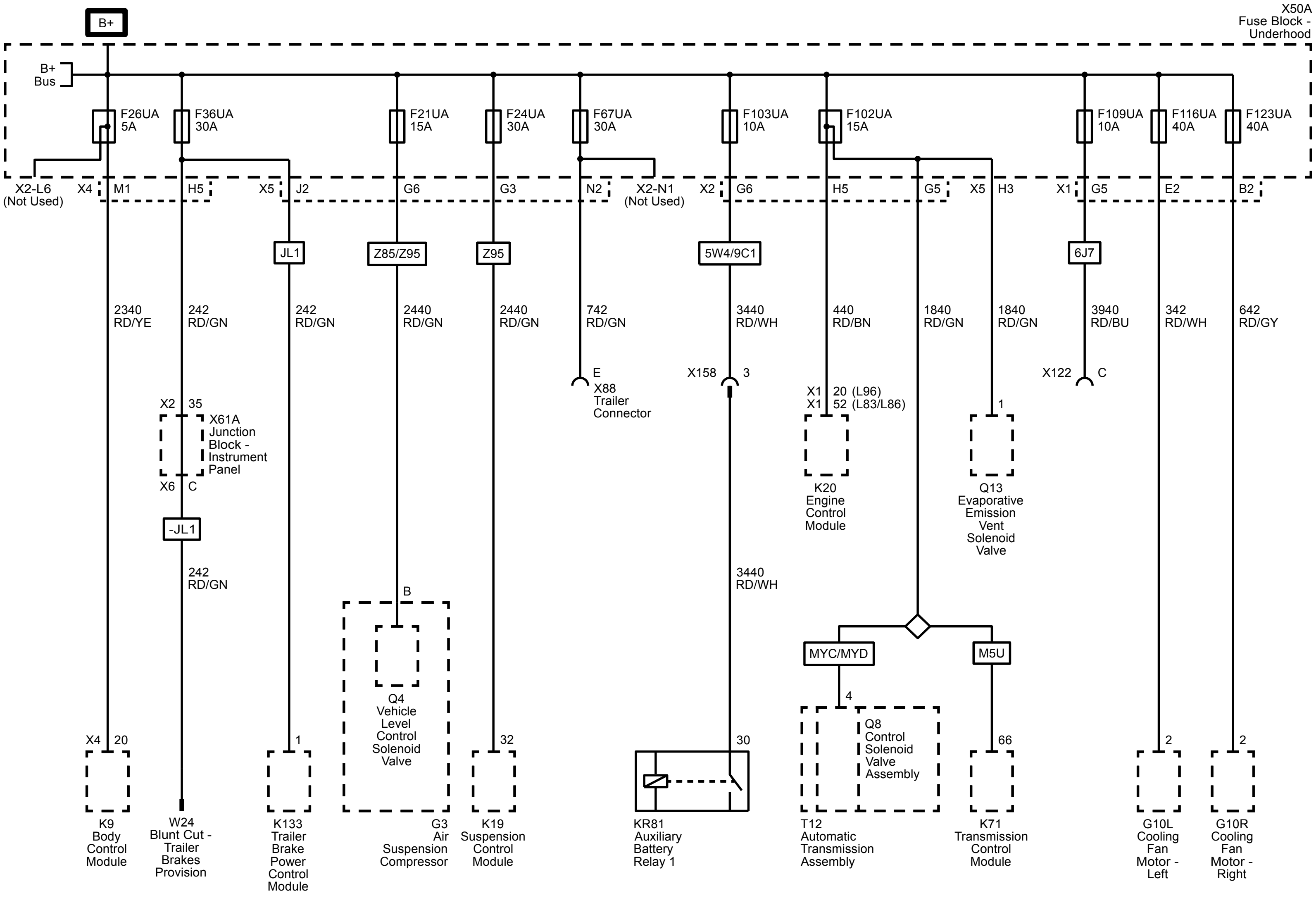

B+
X50A
Fuse Block -
Underhood
F1UA
30A
F2UA
60A
F3UA
60A
F4UA
40A
F5UA
40A
F6UA
30A
F10UA
40A
F13UA
60A
F14UA
60A
F17UA
40A
F21UA
15A
F23UA
10A
F24UA
30A
F25UA
30A
F26UA
5A
F36UA
25A
F35UA
25A
F36UA
30A
F67UA
30A
F102UA
15A
F103UA
10A
F109UA
10A
F116UA
40A
F123UA
40A
F104UA
40A
30
KR27
Starter
Relay
L96
F22UA
20A
30
KR23A
Fuel
Pump
Relay
KR3
Horn
Relay
F93UA
15A
X5 - G5
(Not Used)
(T4F)
KR49
Headlamp
Low Beam
Relay
KR48
Headlamp
High Beam
Relay
(T3U)
KR46
Front Fog
Lamp
Relay
KR61
Trailer
Backup
Lamps
Relay
KR63L
Trailer
Stop/Turn
Signal
Lamp
Relay -
Left
KR63R
Trailer
Stop/Turn
Signal
Lamp
Relay -
Right
F121UA
20A
F122UA
20A
F95UA
10A
F94UA
15A
F34UA
10A
F49UA
10A
F40UA
10A
F39UA
10A
30
86
KR53
Park
Lamps
Relay
87
KR11
Windshield
Washer
Pump Relay
KR6
Rear
Window
Washer
Pump
Relay
F30UA
25A
A
B+
Bus
F42UA
15A
F43UA
15A
F41UA
20A
F114UA
15A
F115UA
15A
KR12C
Windshield
Wiper
Speed
Control
Relay
KR12B
Windshield
Wiper
Relay


X50A
Fuse Block - Underhood
L O C
D E S C
B+ Bus
A
30
KR73 Ignition Main Relay
87
5W4/9C1
F78UA 5A
5W4/9C1
F70UA 5A
VQ9
VQ9
5W4/9C1
L96
5W4/9C1
F74UA 15A
F76UA 15A
F83UA 10A
F77UA 5A
F68UA 20A
F69UA 5A
F45UA 10A
F75UA 10A
F59UA 20A
F107UA 10A
30
KR23B Fuel Pump Relay - Secondary
85
30
KR161A Configurable Provision Relay 1
85
30
KR161B Configurable Provision Relay 2
85
30
KR161C Configurable Provision Relay 3
85
30
KR161D Configurable Provision Relay 4
87
F63UA 30A
87
F28UA 30A
87
F44UA 30A
87
F47UA 30A
86
30
KR75 Engine Controls Ignition Relay
87
F60UA 10A
86
30
KR29 A/C Compressor Clutch Relay
F87UA 15A
F88UA 20A
F89UA 20A
F90UA 15A
F91UA 15A
F100UA 15A
F101UA 30A
X4 - M4
(Not Used)

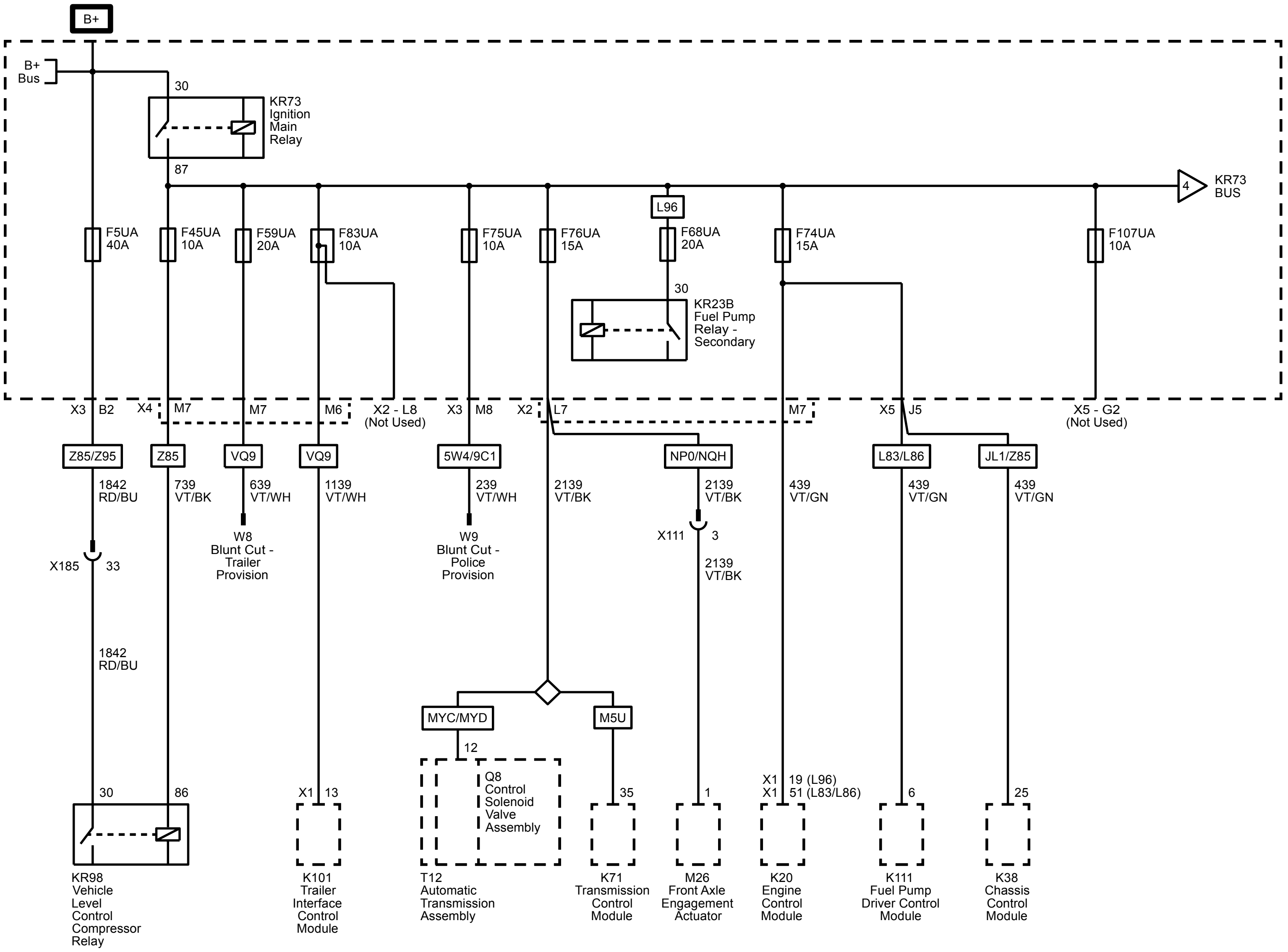
F1UA, F2UA, F3UA, F4UA, F6UA, F10UA, F13UA, F14UA, F17UA, F23UA, F25UA, and F35UA


B+
B+ Bus
X50A Fuse Block - Underhood
F1UA 30A
F2UA 60A
F35UA 25A
F10UA 40A
F23UA 10A
F25UA 30A
F3UA 60A
F13UA 60A
F14UA 60A
F4UA 40A
F17UA 40A
F6UA 30A
X5 C2
B1
J4
E1
G4
G2
X4-G5 (Not Used)
X4 B2
E2
E1
B1
X3 E2
B1
J71
JL1/Z85
L83/L86
AX7
AX7
NQH/NP0
NQH/NP0
1142 RD/YE
442 RD/YE
1640 RD/VT
1642 RD/WH
2040 RD/WH
1940 RD/VT
842 RD/VT
42 RD/BU
942 RD/WH
1042 RD/GY
4042 RD/WH
1342 RD/GY
1342 RD/GY
X115 1
X2 3
X61A Junction Block - Instrument Panel
X8 11
1342 RD/GY
1342 RD/GY
X1 5
1
25
A
1
1
X1 21
23
64
4
4
B
X3 C
K4 Assist Step Control Module
K17 Electronic Brake Control Module
K83 Park Brake Control Module
K38 Chassis Control Module
K111 Fuel Pump Driver Control Module
X51L Fuse Block - Instrument Panel Left
X53A Fuse Block - Rear Body
M101R Seat Belt Retractor Motor Module - Right
M101L Seat Belt Retractor Motor Module - Left
A16 Transfer Case Motor
K69 Transfer Case Control Module

F21UA, F24UA, F26UA, F36UA, F67UA, F102UA, F103UA, F109UA, F116UA and F123UA

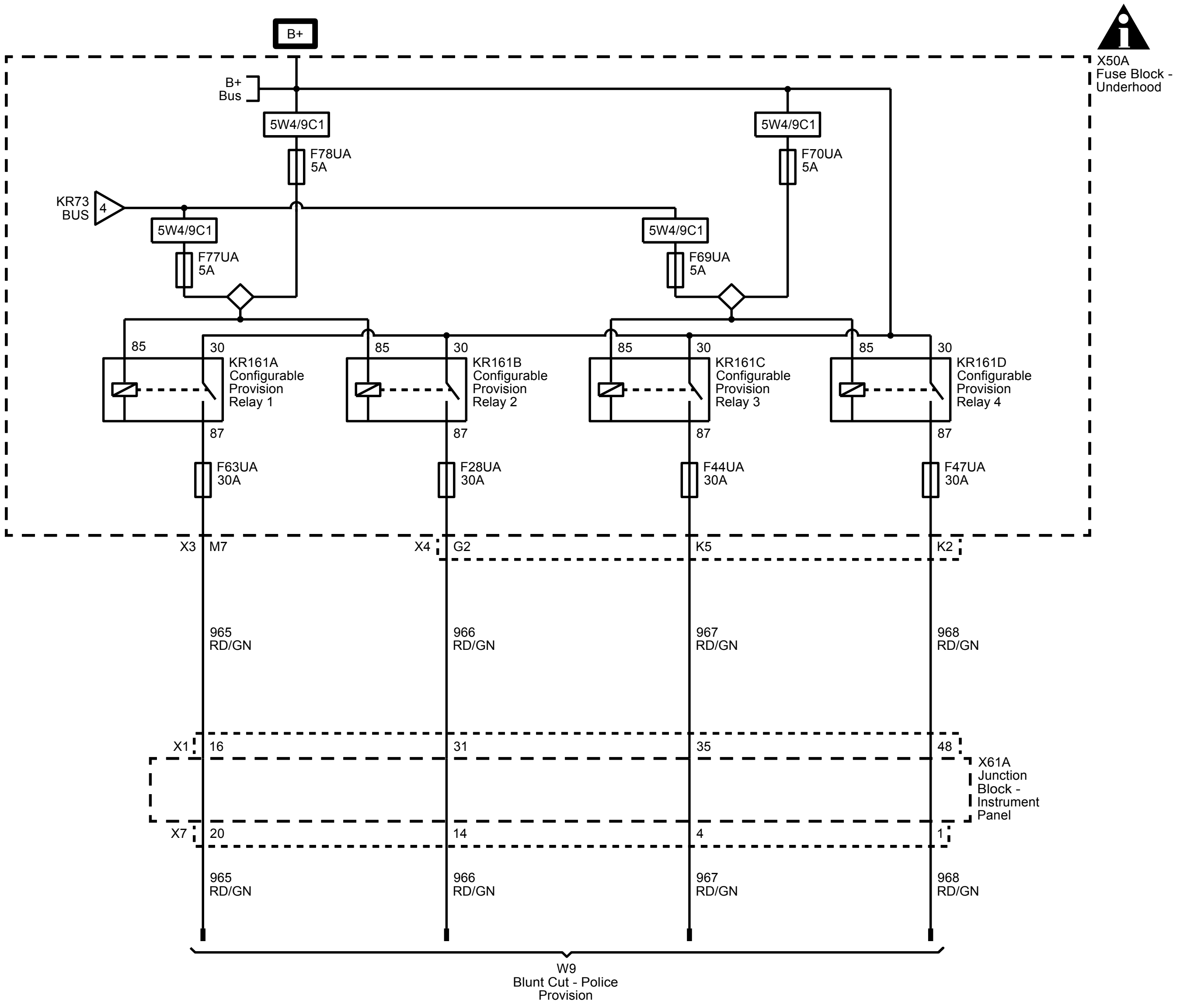

B+
X50A
Fuse Block -
Underhood
B+
Bus
F26UA
5A
F36UA
30A
F21UA
15A
F24UA
30A
F67UA
30A
F103UA
10A
F102UA
15A
F109UA
10A
F116UA
40A
F123UA
40A
X2-L6
(Not Used)
X4
M1
H5
X5
J2
G6
G3
N2
X2-N1
(Not Used)
X2
G6
H5
G5
X5
H3
X1
G5
E2
B2
JL1
Z85/Z95
Z95
5W4/9C1
6J7
2340
RD/YE
242
RD/GN
242
RD/GN
2440
RD/GN
2440
RD/GN
742
RD/GN
3440
RD/WH
440
RD/BN
1840
RD/GN
1840
RD/GN
3940
RD/BU
342
RD/WH
642
RD/GY
E
X88
Trailer
Connector
X158
3
X1
X1
20 (L96)
52 (L83/L86)
1
X122
C
X2
35
X61A
Junction
Block -
Instrument
Panel
X6
C
K20
Engine
Control
Module
Q13
Evaporative
Emission
Vent
Solenoid
Valve
-JL1
242
RD/GN
3440
RD/WH
B
Q4
Vehicle
Level
Control
Solenoid
Valve
MYC/MYD
M5U
4
Q8
Control
Solenoid
Valve
Assembly
X4
20
1
32
30
66
2
2
K9
Body
Control
Module
W24
Blunt Cut -
Trailer
Brakes
Provision
K133
Trailer
Brake
Power
Control
Module
G3
Air
Suspension
Compressor
K19
Suspension
Control
Module
KR81
Auxiliary
Battery
Relay 1
T12
Automatic
Transmission
Assembly
K71
Transmission
Control
Module
G10L
Cooling
Fan
Motor -
Left
G10R
Cooling
Fan
Motor -
Right

F5UA, F45UA, F68UA, F74UA, F75UA, F76UA and F107UA

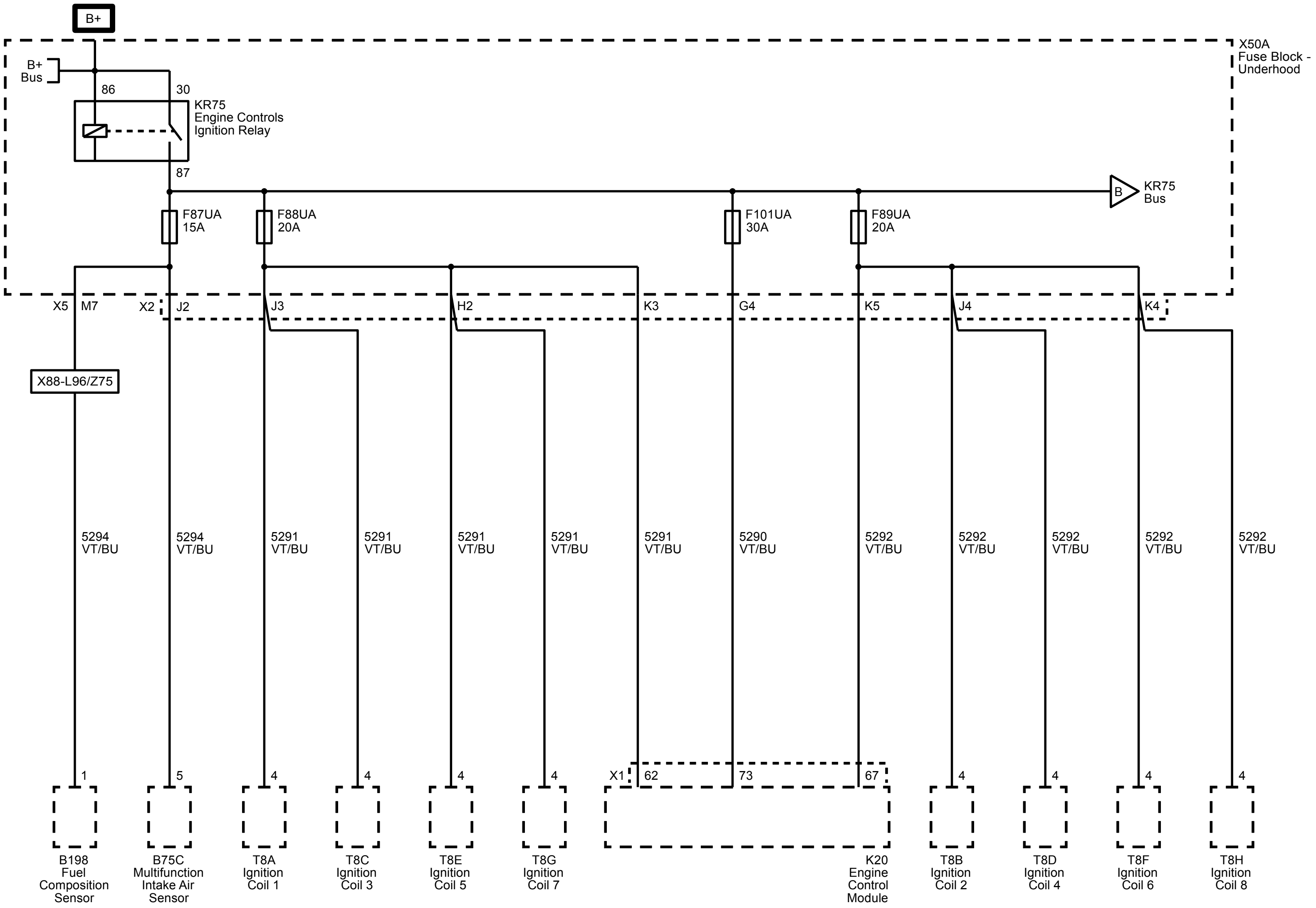


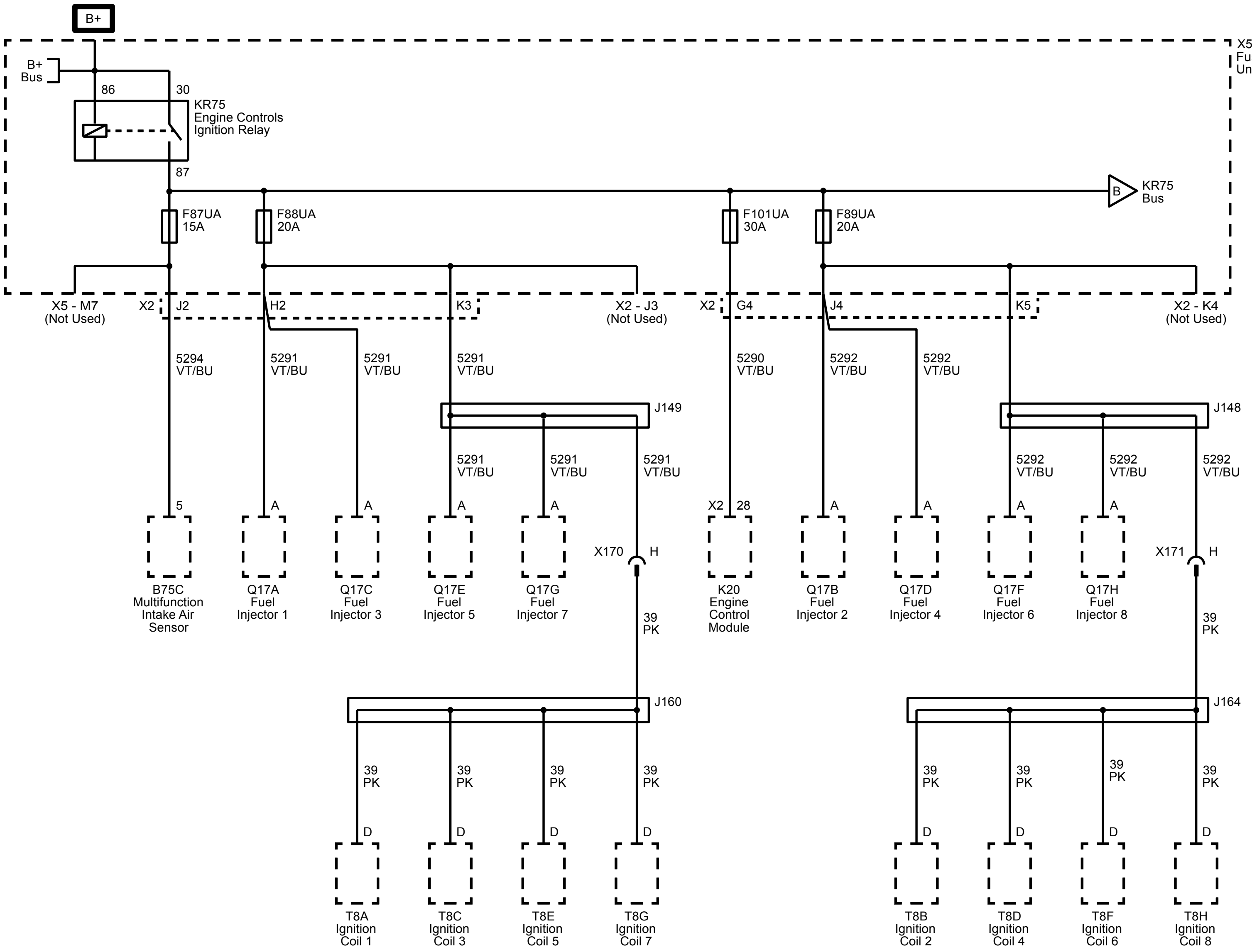
B+
B+ Bus
X50A Fuse Block - Underhood
30
KR73 Ignition Main Relay
87
4
KR73 BUS
L96
F5UA 40A
F45UA 10A
F59UA 20A
F83UA 10A
F75UA 10A
F76UA 15A
F68UA 20A
F74UA 15A
F107UA 10A
30
KR23B Fuel Pump Relay - Secondary
X3 B2
X4 M7
M7
M6
X2 - L8 (Not Used)
X3 M8
X2 L7
M7
X5 J5
X5 - G2 (Not Used)
Z85/Z95
Z85
VQ9
VQ9
5W4/9C1
NP0/NQH
L83/L86
JL1/Z85
1842 RD/BU
739 VT/BK
639 VT/WH
1139 VT/WH
239 VT/WH
2139 VT/BK
2139 VT/BK
439 VT/GN
439 VT/GN
439 VT/GN
W8 Blunt Cut - Trailer Provision
W9 Blunt Cut - Police Provision
X111 3
2139 VT/BK
X185 33
1842 RD/BU
MYC/MYD
M5U
12
Q8 Control Solenoid Valve Assembly
30
86
X1 13
35
1
X1 19 (L96)
X1 51 (L83/L86)
6
25
KR98 Vehicle Level Control Compressor Relay
K101 Trailer Interface Control Module
T12 Automatic Transmission Assembly
K71 Transmission Control Module
M26 Front Axle Engagement Actuator
K20 Engine Control Module
K111 Fuel Pump Driver Control Module
K38 Chassis Control Module

F28UA, F44UA, F47UA, F63UA, F69UA, F70UA, F77UA and F78UA (5W4 or 9C1)

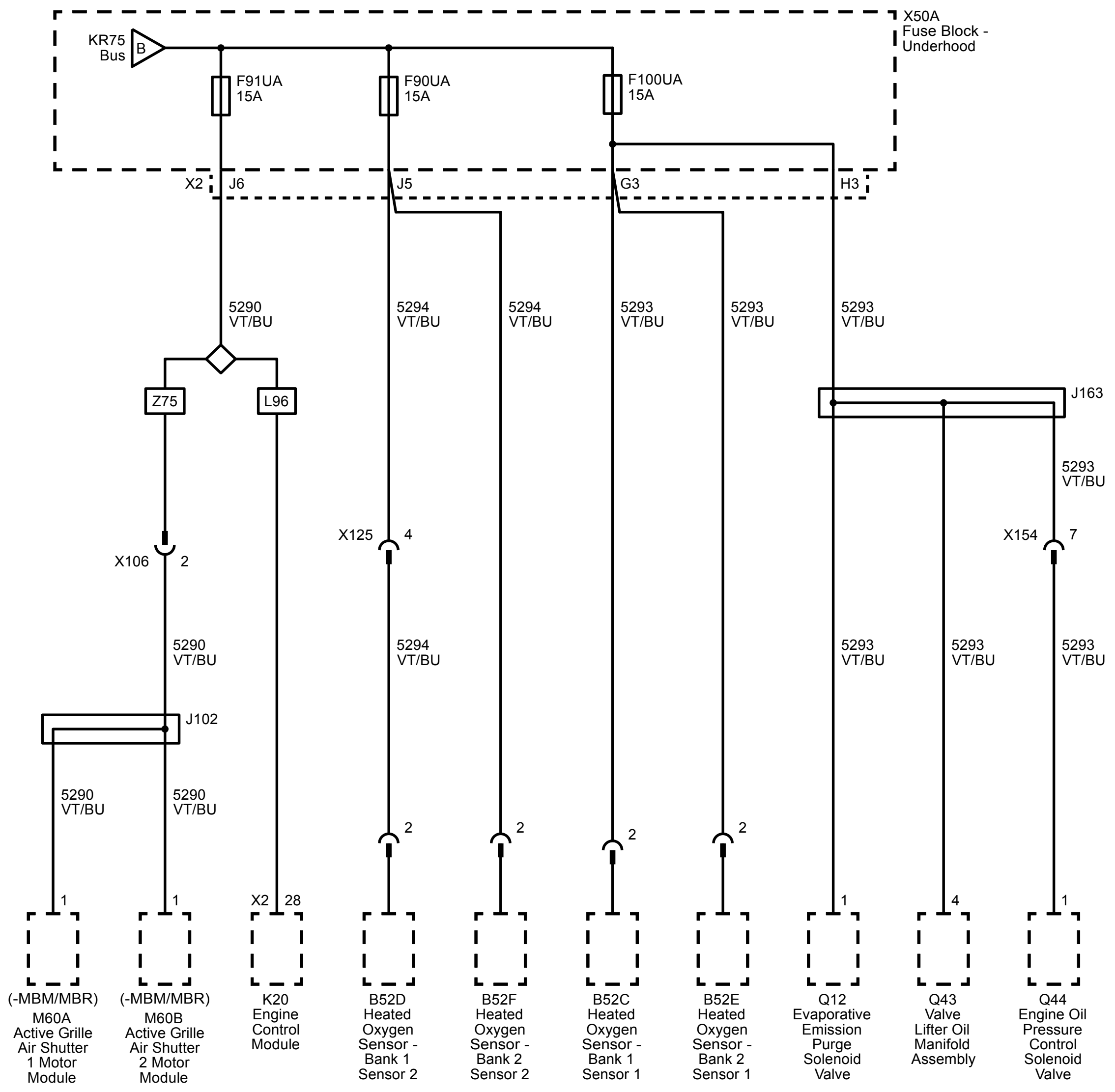

B+
B+ Bus
X50A Fuse Block - Underhood
5W4/9C1
F78UA 5A
5W4/9C1
F70UA 5A
KR73 BUS
4
5W4/9C1
F77UA 5A
5W4/9C1
F69UA 5A
85
30
KR161A Configurable Provision Relay 1
87
85
30
KR161B Configurable Provision Relay 2
87
85
30
KR161C Configurable Provision Relay 3
87
85
30
KR161D Configurable Provision Relay 4
87
F63UA 30A
F28UA 30A
F44UA 30A
F47UA 30A
X3 M7
X4 G2
K5
K2
965 RD/GN
966 RD/GN
967 RD/GN
968 RD/GN
X1 16
31
35
48
X61A Junction Block - Instrument Panel
X7 20
14
4
1
965 RD/GN
966 RD/GN
967 RD/GN
968 RD/GN
W9 Blunt Cut - Police Provision

F87UA, F88UA, F89UA and F101UA (L83 or L86)

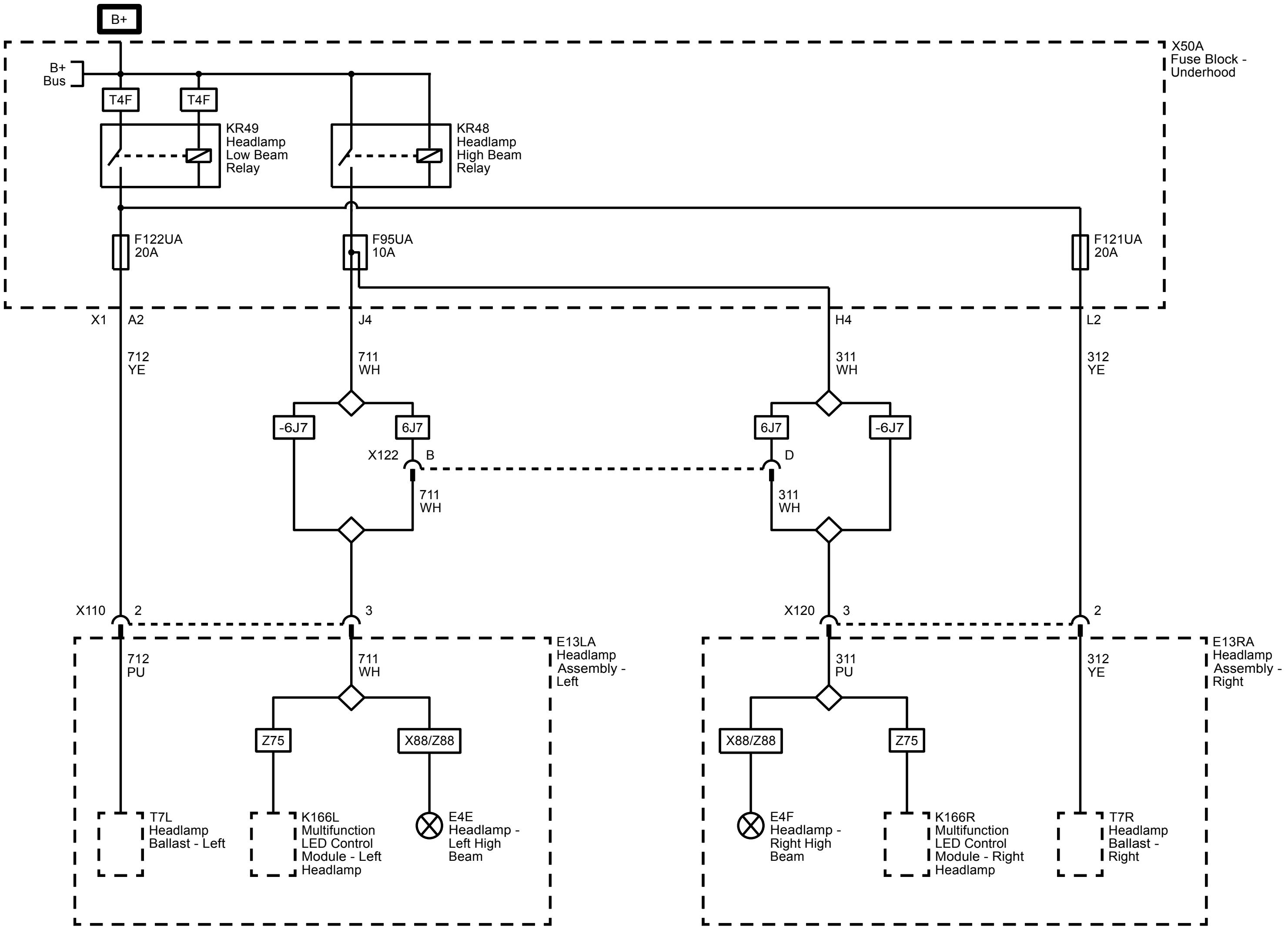

B+
B+ Bus
86
30
KR75 Engine Controls Ignition Relay
87
X50A Fuse Block - Underhood
KR75 Bus
B
F87UA 15A
F88UA 20A
F101UA 30A
F89UA 20A
X5
M7
X2
J2
J3
H2
K3
G4
K5
J4
K4
X88-L96/Z75
5294 VT/BU
5294 VT/BU
5291 VT/BU
5291 VT/BU
5291 VT/BU
5291 VT/BU
5291 VT/BU
5290 VT/BU
5292 VT/BU
5292 VT/BU
5292 VT/BU
5292 VT/BU
5292 VT/BU
1
5
4
4
4
4
X1
62
73
67
4
4
4
4
B198 Fuel Composition Sensor
B75C Multifunction Intake Air Sensor
T8A Ignition Coil 1
T8C Ignition Coil 3
T8E Ignition Coil 5
T8G Ignition Coil 7
K20 Engine Control Module
T8B Ignition Coil 2
T8D Ignition Coil 4
T8F Ignition Coil 6
T8H Ignition Coil 8


B+
B+ Bus
86
30
KR75 Engine Controls Ignition Relay
87
X50A Fuse Block - Underhood
B
KR75 Bus
F87UA 15A
F88UA 20A
F101UA 30A
F89UA 20A
X5 - M7 (Not Used)
X2
J2
H2
K3
X2 - J3 (Not Used)
X2
G4
J4
K5
X2 - K4 (Not Used)
5294 VT/BU
5291 VT/BU
5291 VT/BU
5291 VT/BU
5290 VT/BU
5292 VT/BU
5292 VT/BU
J149
J148
5291 VT/BU
5291 VT/BU
5291 VT/BU
5292 VT/BU
5292 VT/BU
5292 VT/BU
5
A
A
A
A
X2
28
A
A
A
A
X170
H
X171
H
B75C Multifunction Intake Air Sensor
Q17A Fuel Injector 1
Q17C Fuel Injector 3
Q17E Fuel Injector 5
Q17G Fuel Injector 7
K20 Engine Control Module
Q17B Fuel Injector 2
Q17D Fuel Injector 4
Q17F Fuel Injector 6
Q17H Fuel Injector 8
39 PK
39 PK
J160
J164
39 PK
39 PK
39 PK
39 PK
39 PK
39 PK
39 PK
39 PK
D
D
D
D
D
D
D
D
T8A Ignition Coil 1
T8C Ignition Coil 3
T8E Ignition Coil 5
T8G Ignition Coil 7
T8B Ignition Coil 2
T8D Ignition Coil 4
T8F Ignition Coil 6
T8H Ignition Coil 8

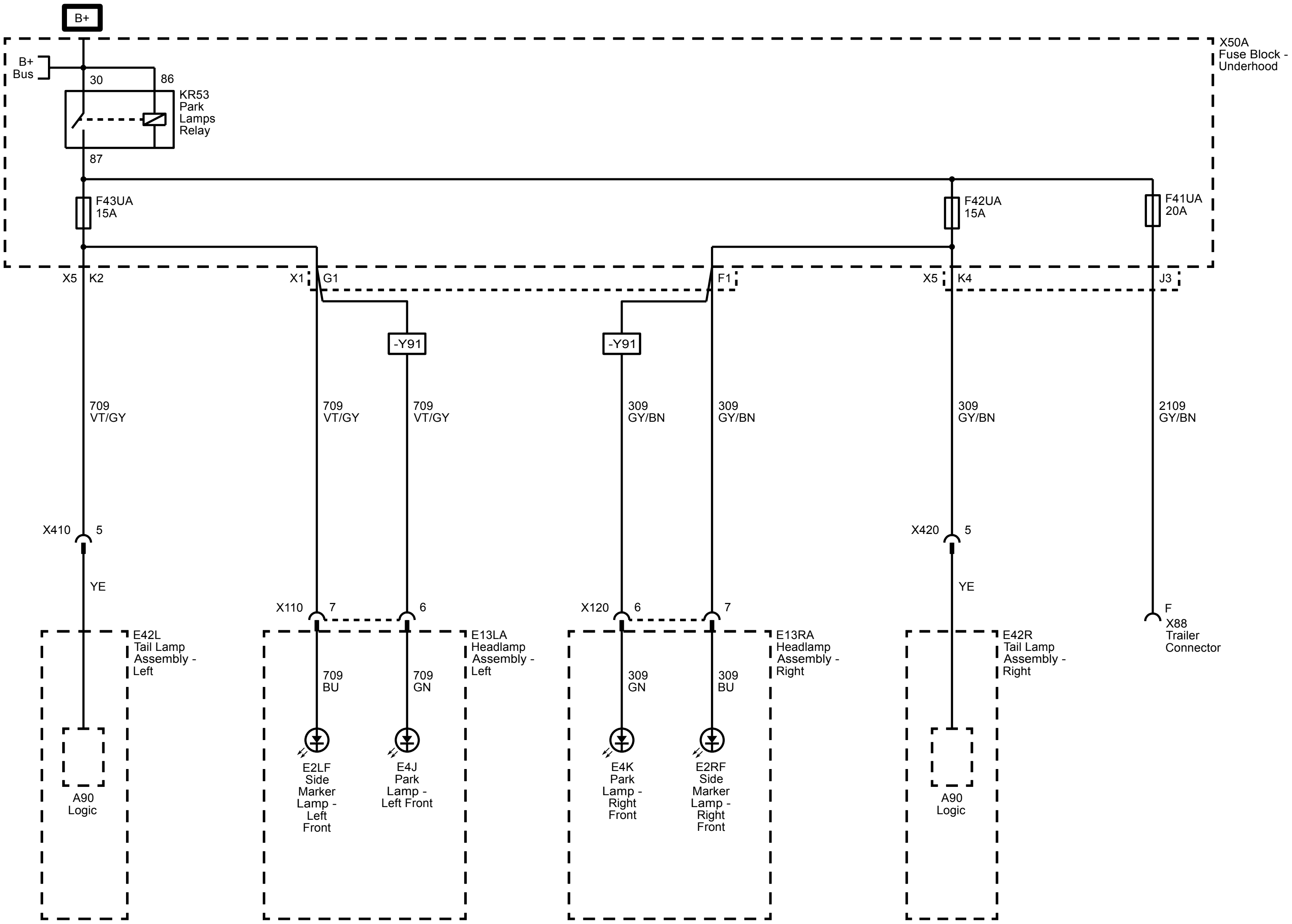
F90UA, F91UA and F100UA


X50A
Fuse Block -
Underhood
KR75
Bus
B
F91UA
15A
F90UA
15A
F100UA
15A
X2
J6
J5
G3
H3
5290
VT/BU
5294
VT/BU
5294
VT/BU
5293
VT/BU
5293
VT/BU
5293
VT/BU
Z75
L96
J163
5293
VT/BU
X106
2
X125
4
X154
7
5290
VT/BU
5294
VT/BU
5293
VT/BU
5293
VT/BU
5293
VT/BU
J102
5290
VT/BU
5290
VT/BU
2
2
2
2
1
1
X2
28
1
4
1
(-MBM/MBR)
M60A
Active Grille
Air Shutter
1 Motor
Module
(-MBM/MBR)
M60B
Active Grille
Air Shutter
2 Motor
Module
K20
Engine
Control
Module
B52D
Heated
Oxygen
Sensor -
Bank 1
Sensor 2
B52F
Heated
Oxygen
Sensor -
Bank 2
Sensor 2
B52C
Heated
Oxygen
Sensor -
Bank 1
Sensor 1
B52E
Heated
Oxygen
Sensor -
Bank 2
Sensor 1
Q12
Evaporative
Emission
Purge
Solenoid
Valve
Q43
Valve
Lifter Oil
Manifold
Assembly
Q44
Engine Oil
Pressure
Control
Solenoid
Valve

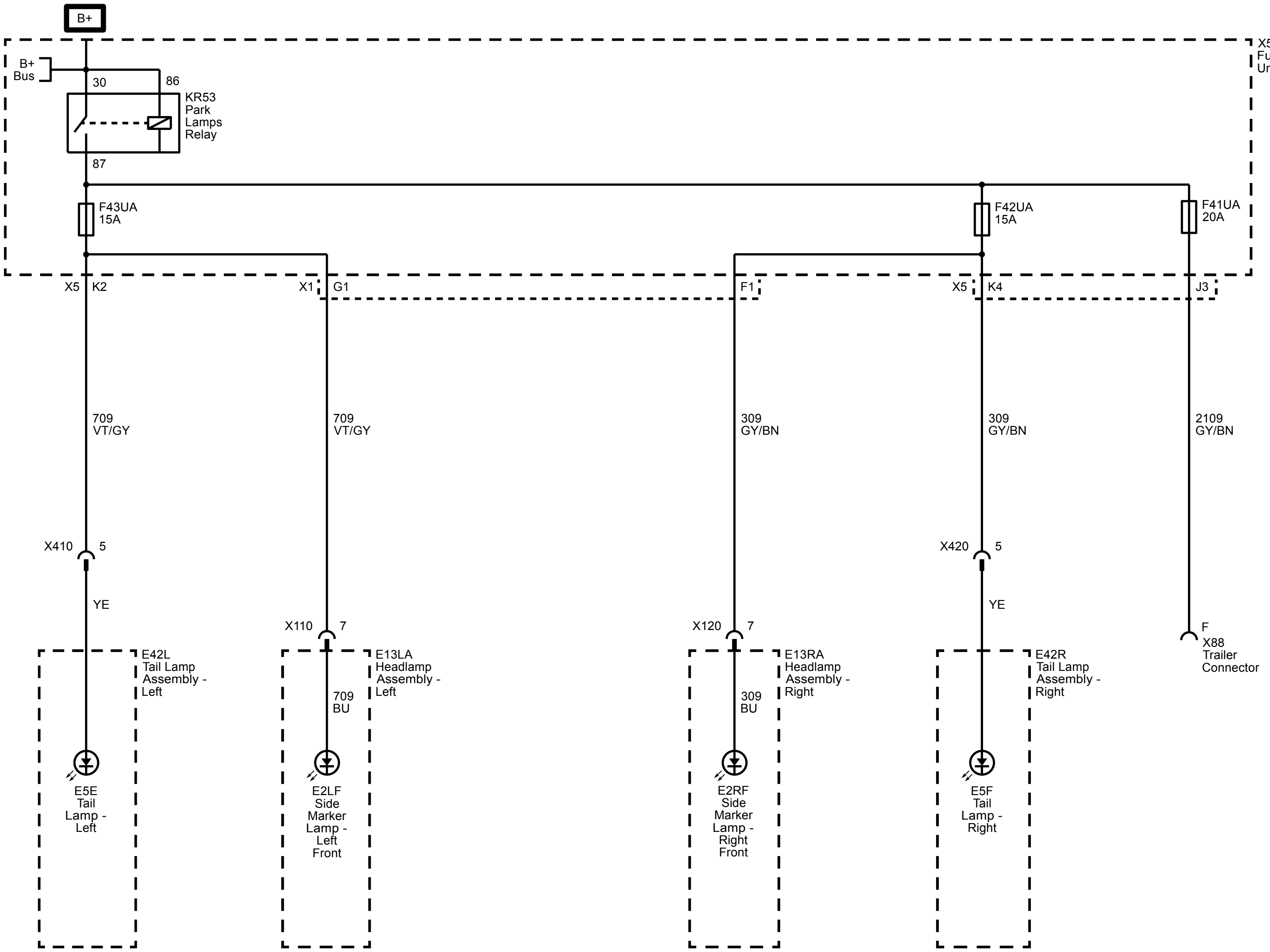
F95UA, F121UA and F122UA


B+
B+ Bus
X50A Fuse Block - Underhood
T4F
T4F
KR49 Headlamp Low Beam Relay
KR48 Headlamp High Beam Relay
F122UA 20A
F95UA 10A
F121UA 20A
X1
A2
J4
H4
L2
712 YE
711 WH
311 WH
312 YE
-6J7
6J7
6J7
-6J7
X122
B
D
711 WH
311 WH
X110
2
3
X120
3
2
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
712 PU
711 WH
311 PU
312 YE
Z75
X88/Z88
X88/Z88
Z75
T7L Headlamp Ballast - Left
K166L Multifunction LED Control Module - Left Headlamp
E4E Headlamp - Left High Beam
E4F Headlamp - Right High Beam
K166R Multifunction LED Control Module - Right Headlamp
T7R Headlamp Ballast - Right

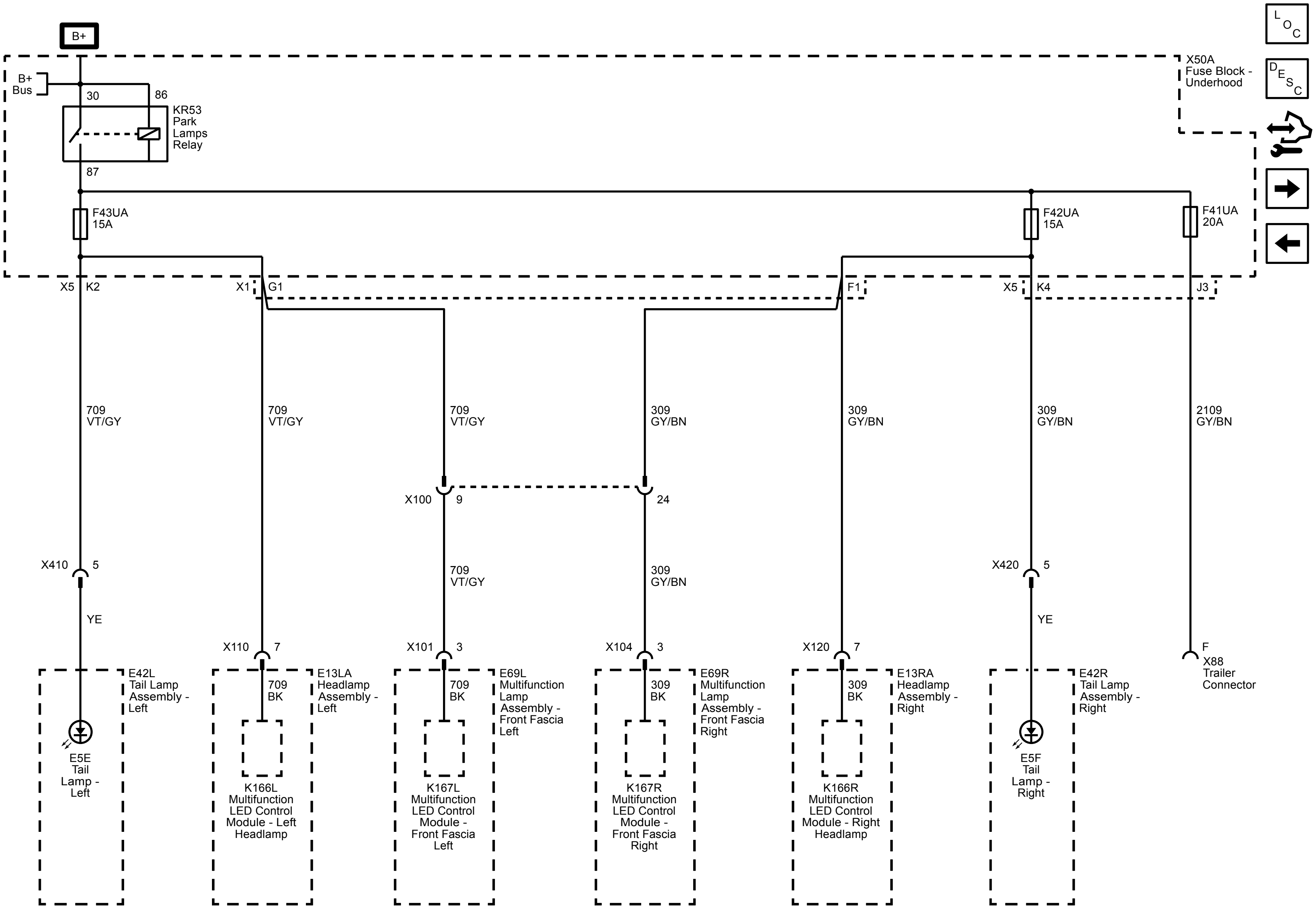
F41UA, F42UA and F43UA (X88)


B+
B+ Bus
30
86
KR53 Park Lamps Relay
87
X50A Fuse Block - Underhood
F43UA 15A
F42UA 15A
F41UA 20A
X5 K2
X1 G1
F1
X5 K4
J3
-Y91
-Y91
709 VT/GY
709 VT/GY
709 VT/GY
309 GY/BN
309 GY/BN
309 GY/BN
2109 GY/BN
X410 5
YE
X420 5
YE
X110 7
6
X120 6
7
F X88 Trailer Connector
E42L Tail Lamp Assembly - Left
A90 Logic
E13LA Headlamp Assembly - Left
709 BU
709 GN
E2LF Side Marker Lamp - Left Front
E4J Park Lamp - Left Front
E13RA Headlamp Assembly - Right
309 GN
309 BU
E4K Park Lamp - Right Front
E2RF Side Marker Lamp - Right Front
E42R Tail Lamp Assembly - Right
A90 Logic

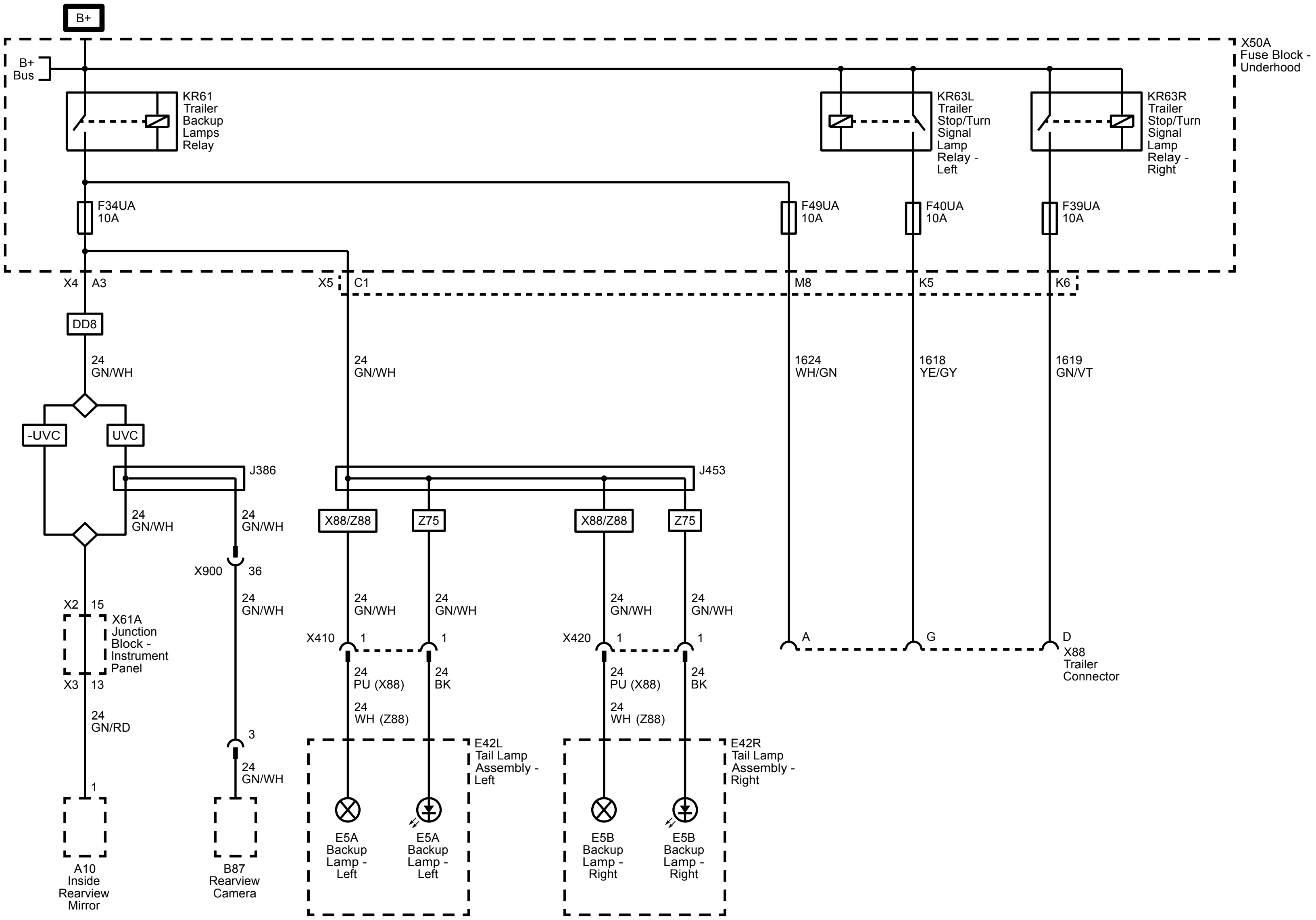
F41UA, F42UA and F43UA (Z88)


B+
B+ Bus
30
86
KR53 Park Lamps Relay
87
X50A Fuse Block - Underhood
F43UA 15A
F42UA 15A
F41UA 20A
X5
K2
X1
G1
F1
X5
K4
J3
709 VT/GY
709 VT/GY
309 GY/BN
309 GY/BN
2109 GY/BN
X410
5
YE
X420
5
YE
X110
7
X120
7
F
X88 Trailer Connector
E42L Tail Lamp Assembly - Left
E13LA Headlamp Assembly - Left
709 BU
E13RA Headlamp Assembly - Right
309 BU
E42R Tail Lamp Assembly - Right
E5E Tail Lamp - Left
E2LF Side Marker Lamp - Left Front
E2RF Side Marker Lamp - Right Front
E5F Tail Lamp - Right

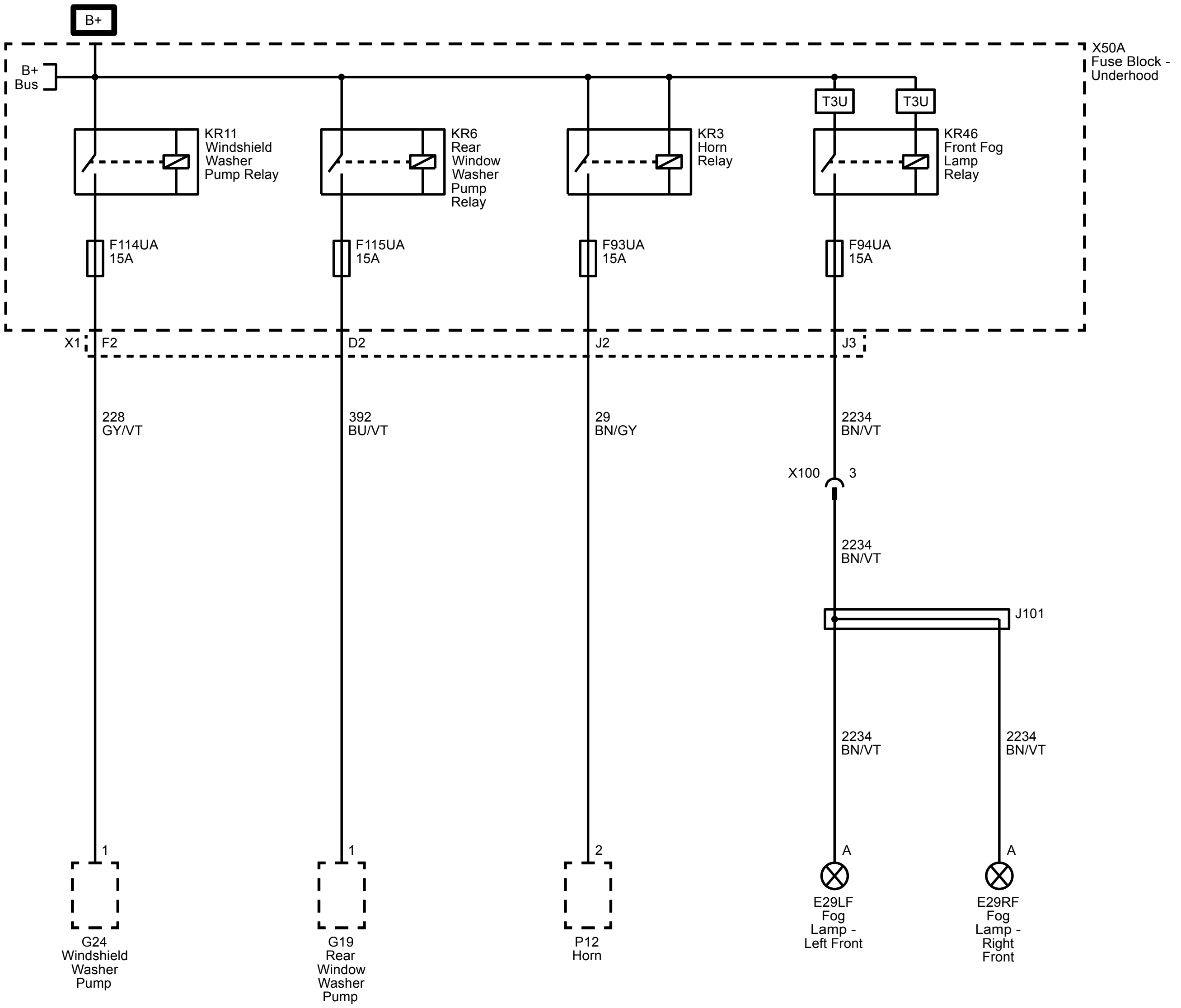
F41UA, F42UA and F43UA (Z75)


B+
B+ Bus
30
86
KR53 Park Lamps Relay
87
X50A Fuse Block - Underhood
F43UA 15A
F42UA 15A
F41UA 20A
X5 K2
X1 G1
F1
X5 K4
J3
709 VT/GY
709 VT/GY
709 VT/GY
309 GY/BN
309 GY/BN
309 GY/BN
2109 GY/BN
X100 9
24
709 VT/GY
309 GY/BN
X410 5
YE
X420 5
YE
X110 7
X101 3
X104 3
X120 7
F
X88 Trailer Connector
E42L Tail Lamp Assembly - Left
E5E Tail Lamp - Left
709 BK
E13LA Headlamp Assembly - Left
K166L Multifunction LED Control Module - Left Headlamp
709 BK
E69L Multifunction Lamp Assembly - Front Fascia Left
K167L Multifunction LED Control Module - Front Fascia Left
309 BK
E69R Multifunction Lamp Assembly - Front Fascia Right
K167R Multifunction LED Control Module - Front Fascia Right
309 BK
E13RA Headlamp Assembly - Right
K166R Multifunction LED Control Module - Right Headlamp
E42R Tail Lamp Assembly - Right
E5F Tail Lamp - Right
L O C
D E S C

F34UA, F39UA, F40UA and F49UA

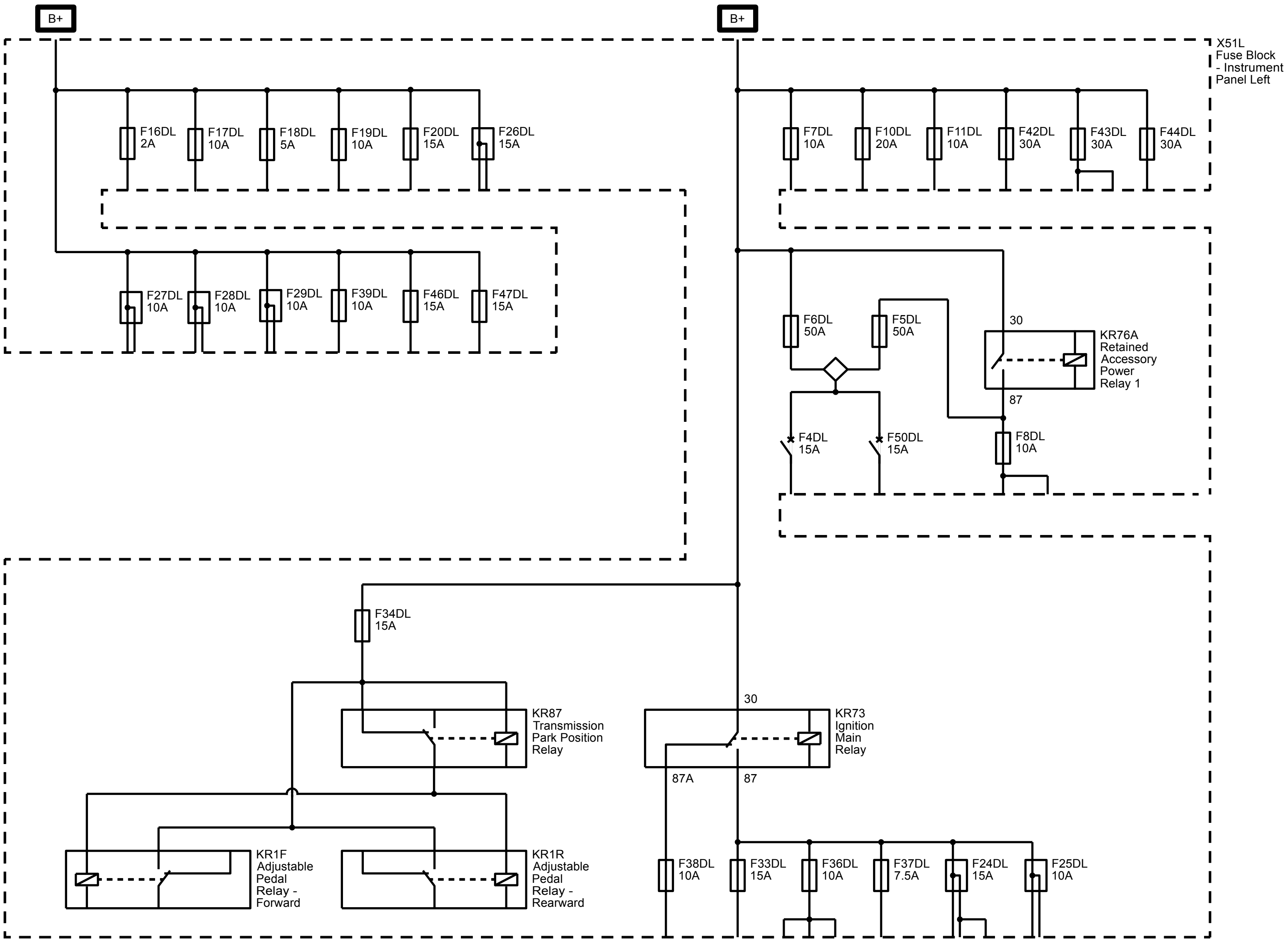

B+
B+ Bus
X50A Fuse Block - Underhood
KR61 Trailer Backup Lamps Relay
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F34UA 10A
F49UA 10A
F40UA 10A
F39UA 10A
X4 A3
X5 C1
M8
K5
K6
DD8
24 GN/WH
-UVC
UVC
J386
J453
1624 WH/GN
1618 YE/GY
1619 GN/VT
X88/Z88
Z75
X900 36
X2 15
X61A Junction Block - Instrument Panel
X3 13
24 GN/RD
X410 1
X420 1
A
G
D
X88 Trailer Connector
24 PU (X88)
24 WH (Z88)
24 BK
3
1
E42L Tail Lamp Assembly - Left
E42R Tail Lamp Assembly - Right
E5A Backup Lamp - Left
E5B Backup Lamp - Right
A10 Inside Rearview Mirror
B87 Rearview Camera

F93UA, F94UA, F114UA and F115UA


B+
B+ Bus
X50A Fuse Block - Underhood
KR11 Windshield Washer Pump Relay
KR6 Rear Window Washer Pump Relay
KR3 Horn Relay
T3U
T3U
KR46 Front Fog Lamp Relay
F114UA 15A
F115UA 15A
F93UA 15A
F94UA 15A
X1
F2
D2
J2
J3
228 GY/VT
392 BU/VT
29 BN/GY
2234 BN/VT
X100
3
2234 BN/VT
J101
2234 BN/VT
2234 BN/VT
1
1
2
A
A
G24 Windshield Washer Pump
G19 Rear Window Washer Pump
P12 Horn
E29LF Fog Lamp - Left Front
E29RF Fog Lamp - Right Front

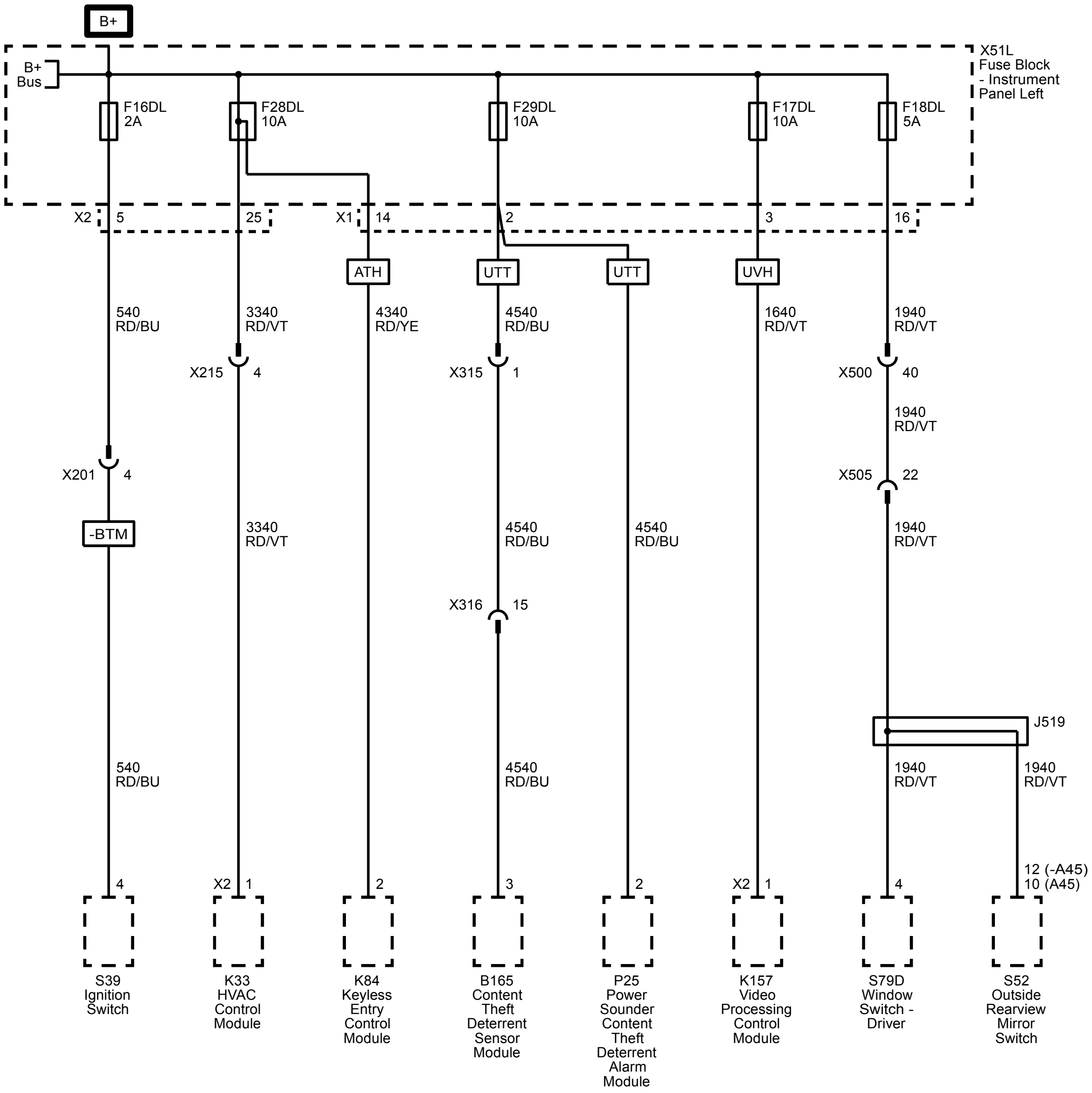
LOC
DESC

X51L Fuse Block - Instrument Panel Left Bussing

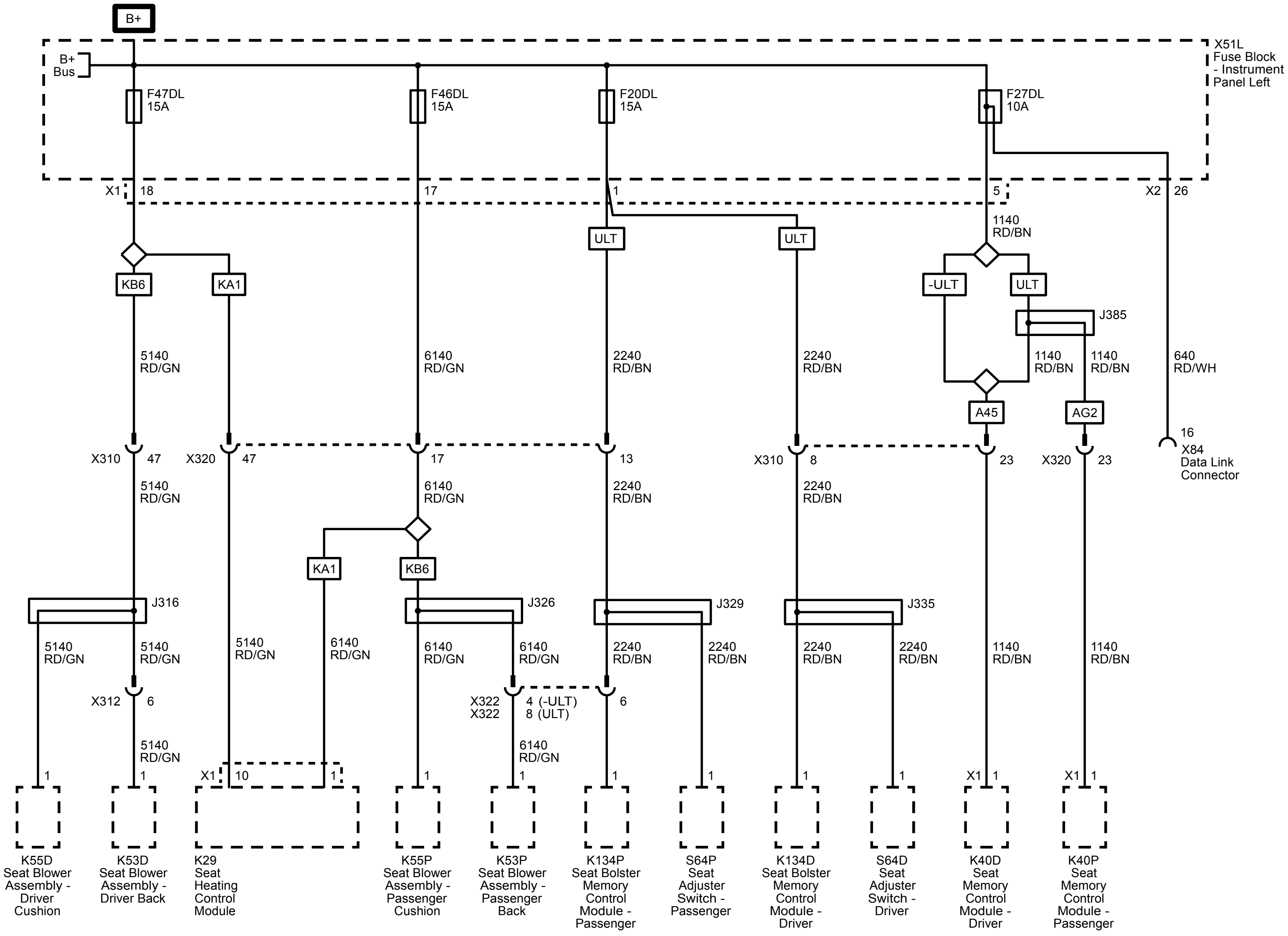

B+
B+
X51L
Fuse Block
- Instrument
Panel Left
F16DL
2A
F17DL
10A
F18DL
5A
F19DL
10A
F20DL
15A
F26DL
15A
F27DL
10A
F28DL
10A
F29DL
10A
F39DL
10A
F46DL
15A
F47DL
15A
F7DL
10A
F10DL
20A
F11DL
10A
F42DL
30A
F43DL
30A
F44DL
30A
F6DL
50A
F5DL
50A
30
KR76A
Retained
Accessory
Power
Relay 1
87
F4DL
15A
F50DL
15A
F8DL
10A
F34DL
15A
KR87
Transmission
Park Position
Relay
30
KR73
Ignition
Main
Relay
87A
87
KR1F
Adjustable
Pedal
Relay -
Forward
KR1R
Adjustable
Pedal
Relay -
Rearward
F38DL
10A
F33DL
15A
F36DL
10A
F37DL
7.5A
F24DL
15A
F25DL
10A

LOC
DESC

F16DL, F17DL, F18DL, F28DL and F29DL

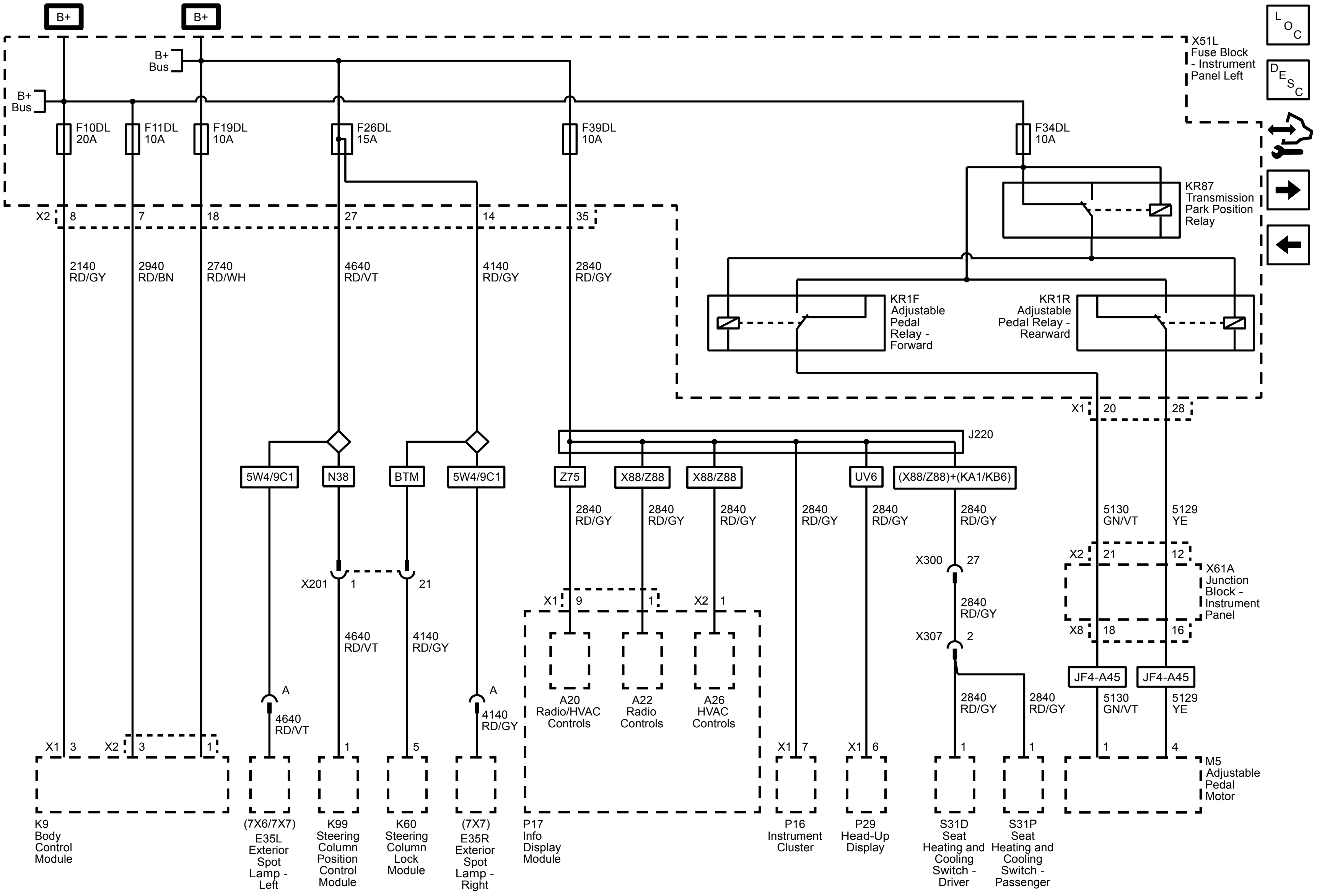

B+
B+ Bus
X51L Fuse Block - Instrument Panel Left
F16DL 2A
F28DL 10A
F29DL 10A
F17DL 10A
F18DL 5A
X2 5
25
X1 14
2
3
16
ATH
UTT
UTT
UVH
540 RD/BU
3340 RD/VT
4340 RD/YE
4540 RD/BU
1640 RD/VT
1940 RD/VT
X215 4
X315 1
X500 40
1940 RD/VT
X201 4
X505 22
-BTM
3340 RD/VT
4540 RD/BU
4540 RD/BU
1940 RD/VT
X316 15
J519
540 RD/BU
4540 RD/BU
1940 RD/VT
1940 RD/VT
4
X2 1
2
3
2
X2 1
4
12 (-A45)
10 (A45)
S39 Ignition Switch
K33 HVAC Control Module
K84 Keyless Entry Control Module
B165 Content Theft Deterrent Sensor Module
P25 Power Sounder Content Theft Deterrent Alarm Module
K157 Video Processing Control Module
S79D Window Switch - Driver
S52 Outside Rearview Mirror Switch

F20DL, F27DL, F46DL and F47DL

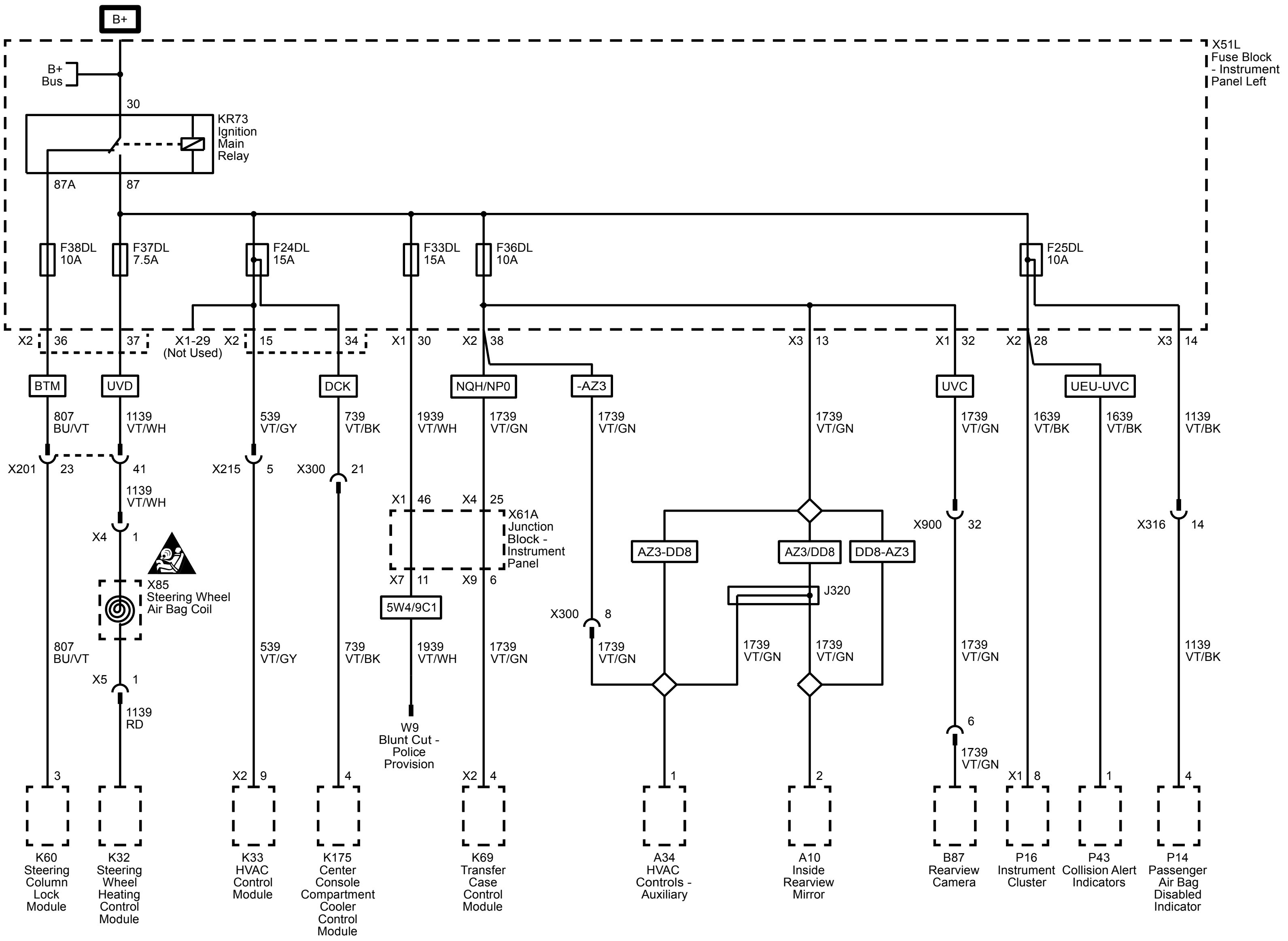


B+
B+ Bus
X51L Fuse Block - Instrument Panel Left
F47DL 15A
F46DL 15A
F20DL 15A
F27DL 10A
X1 18
17
1
5
X2 26
ULT
ULT
1140 RD/BN
KB6
KA1
-ULT
ULT
J385
5140 RD/GN
6140 RD/GN
2240 RD/BN
2240 RD/BN
1140 RD/BN
1140 RD/BN
640 RD/WH
A45
AG2
X310 47
X320 47
17
13
X310 8
23
X320 23
16 X84 Data Link Connector
5140 RD/GN
6140 RD/GN
2240 RD/BN
2240 RD/BN
KA1
KB6
J316
J326
J329
J335
5140 RD/GN
5140 RD/GN
5140 RD/GN
6140 RD/GN
6140 RD/GN
6140 RD/GN
2240 RD/BN
2240 RD/BN
2240 RD/BN
2240 RD/BN
1140 RD/BN
1140 RD/BN
X312 6
X322 4 (-ULT)
X322 8 (ULT)
6
5140 RD/GN
6140 RD/GN
1
1
X1 10
1
1
1
1
1
1
1
X1 1
X1 1
K55D Seat Blower Assembly - Driver Cushion
K53D Seat Blower Assembly - Driver Back
K29 Seat Heating Control Module
K55P Seat Blower Assembly - Passenger Cushion
K53P Seat Blower Assembly - Passenger Back
K134P Seat Bolster Memory Control Module - Passenger
S64P Seat Adjuster Switch - Passenger
K134D Seat Bolster Memory Control Module - Driver
S64D Seat Adjuster Switch - Driver
K40D Seat Memory Control Module - Driver
K40P Seat Memory Control Module - Passenger

F10DL, F11DL, F19DL, F26DL, F34DL and F39DL

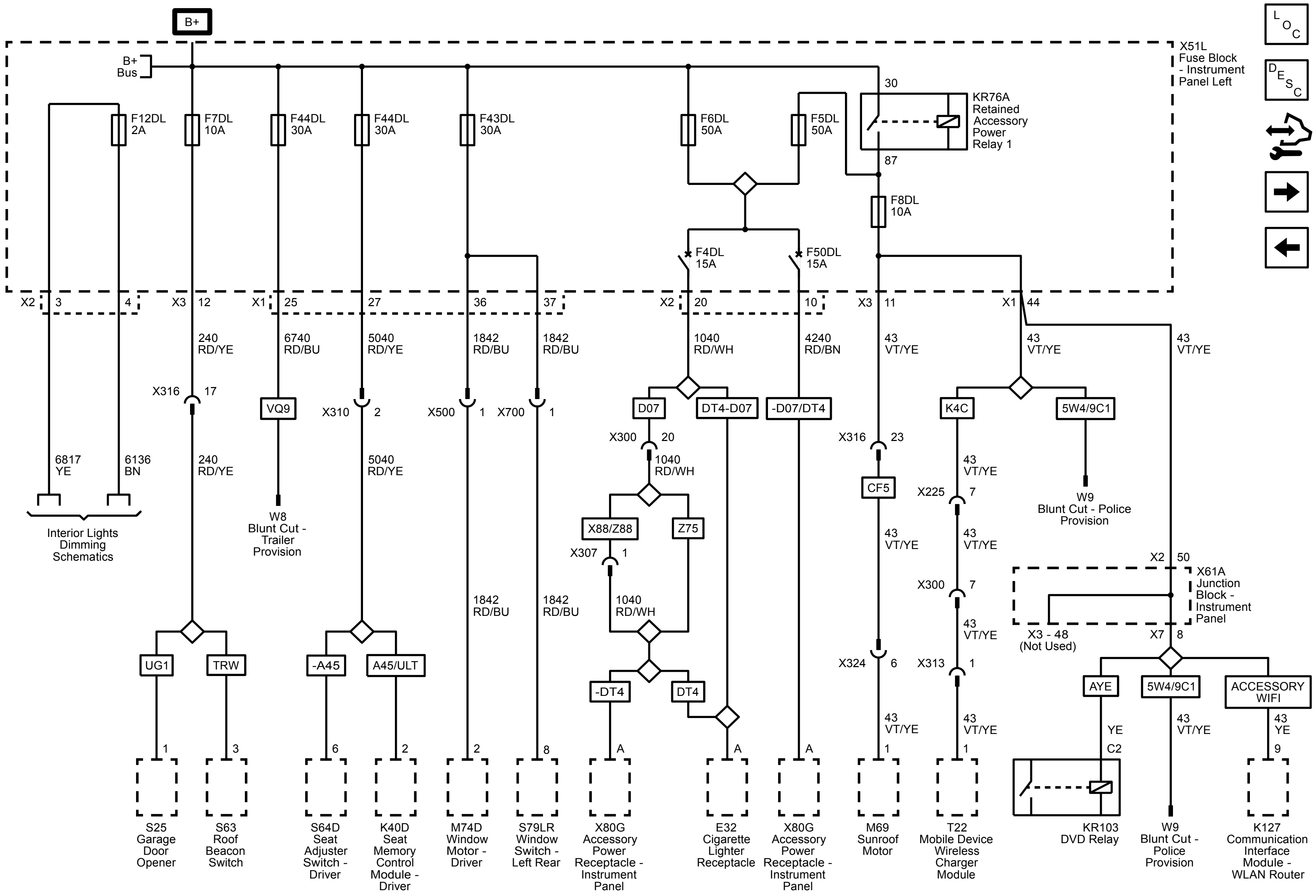

B+
B+
B+ Bus
B+ Bus
X51L Fuse Block - Instrument Panel Left
F10DL 20A
F11DL 10A
F19DL 10A
F26DL 15A
F39DL 10A
F34DL 10A
KR87 Transmission Park Position Relay
KR1F Adjustable Pedal Relay - Forward
KR1R Adjustable Pedal Relay - Rearward
X2 8
7
18
27
14
35
2140 RD/GY
2940 RD/BN
2740 RD/WH
4640 RD/VT
4140 RD/GY
2840 RD/GY
X1 20
28
J220
5W4/9C1
N38
BTM
5W4/9C1
Z75
X88/Z88
X88/Z88
UV6
(X88/Z88)+(KA1/KB6)
5130 GN/VT
5129 YE
X2 21
12
X61A Junction Block - Instrument Panel
X8 18
16
X300 27
X307 2
X201 1
21
A
4640 RD/VT
4140 RD/GY
X1 9
1
X2 1
A20 Radio/HVAC Controls
A22 Radio Controls
A26 HVAC Controls
JF4-A45
JF4-A45
X1 3
X2 3
1
1
5
X1 7
X1 6
1
1
1
4
K9 Body Control Module
(7X6/7X7) E35L Exterior Spot Lamp - Left
K99 Steering Column Position Control Module
K60 Steering Column Lock Module
(7X7) E35R Exterior Spot Lamp - Right
P17 Info Display Module
P16 Instrument Cluster
P29 Head-Up Display
S31D Seat Heating and Cooling Switch - Driver
S31P Seat Heating and Cooling Switch - Passenger
M5 Adjustable Pedal Motor
LOC
DESC

F24DL, F25DL, F33DL, F36DL, F37DL and F38DL

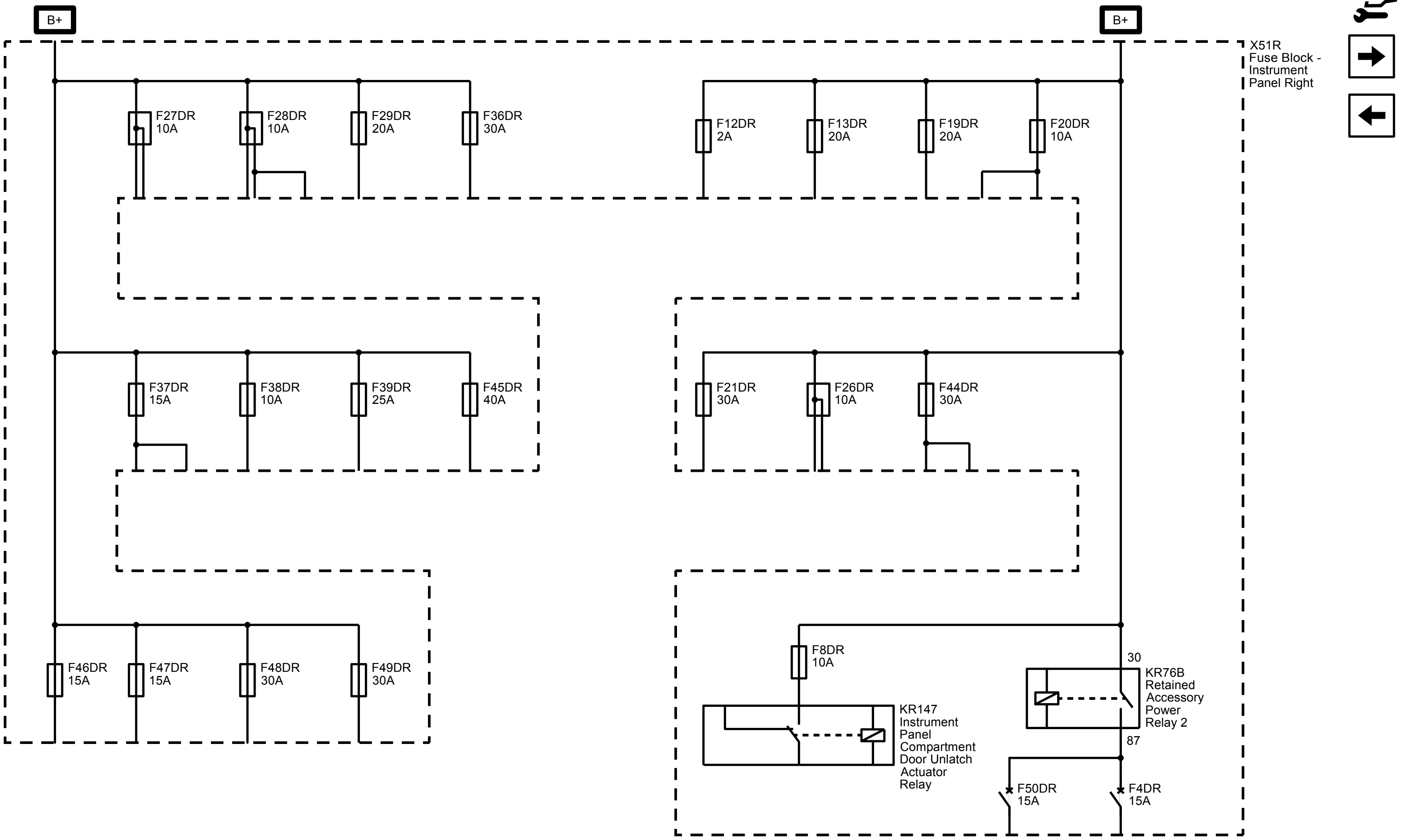


B+
B+ Bus
30
KR73 Ignition Main Relay
87A
87
X51L Fuse Block - Instrument Panel Left
F38DL 10A
F37DL 7.5A
F24DL 15A
F33DL 15A
F36DL 10A
F25DL 10A
X2 36
37
X1-29 (Not Used)
X2 15
34
X1 30
X2 38
X3 13
X1 32
X2 28
X3 14
BTM
UVD
DCK
NQH/NP0
-AZ3
UVC
UEU-UVC
807 BU/VT
1139 VT/WH
539 VT/GY
739 VT/BK
1939 VT/WH
1739 VT/GN
1739 VT/GN
1739 VT/GN
1739 VT/GN
1639 VT/BK
1639 VT/BK
1139 VT/BK
X201 23
41
X215 5
X300 21
1139 VT/WH
X4 1
X85 Steering Wheel Air Bag Coil
X1 46
X4 25
X61A Junction Block - Instrument Panel
X7 11
X9 6
5W4/9C1
AZ3-DD8
AZ3/DD8
DD8-AZ3
J320
X900 32
X316 14
X300 8
807 BU/VT
X5 1
1139 RD
539 VT/GY
739 VT/BK
1939 VT/WH
1739 VT/GN
1739 VT/GN
1739 VT/GN
1739 VT/GN
1739 VT/GN
1139 VT/BK
W9 Blunt Cut - Police Provision
6
1739 VT/GN
3
X2 9
4
X2 4
1
2
X1 8
1
4
K60 Steering Column Lock Module
K32 Steering Wheel Heating Control Module
K33 HVAC Control Module
K175 Center Console Compartment Cooler Control Module
K69 Transfer Case Control Module
A34 HVAC Controls - Auxiliary
A10 Inside Rearview Mirror
B87 Rearview Camera
P16 Instrument Cluster
P43 Collision Alert Indicators
P14 Passenger Air Bag Disabled Indicator

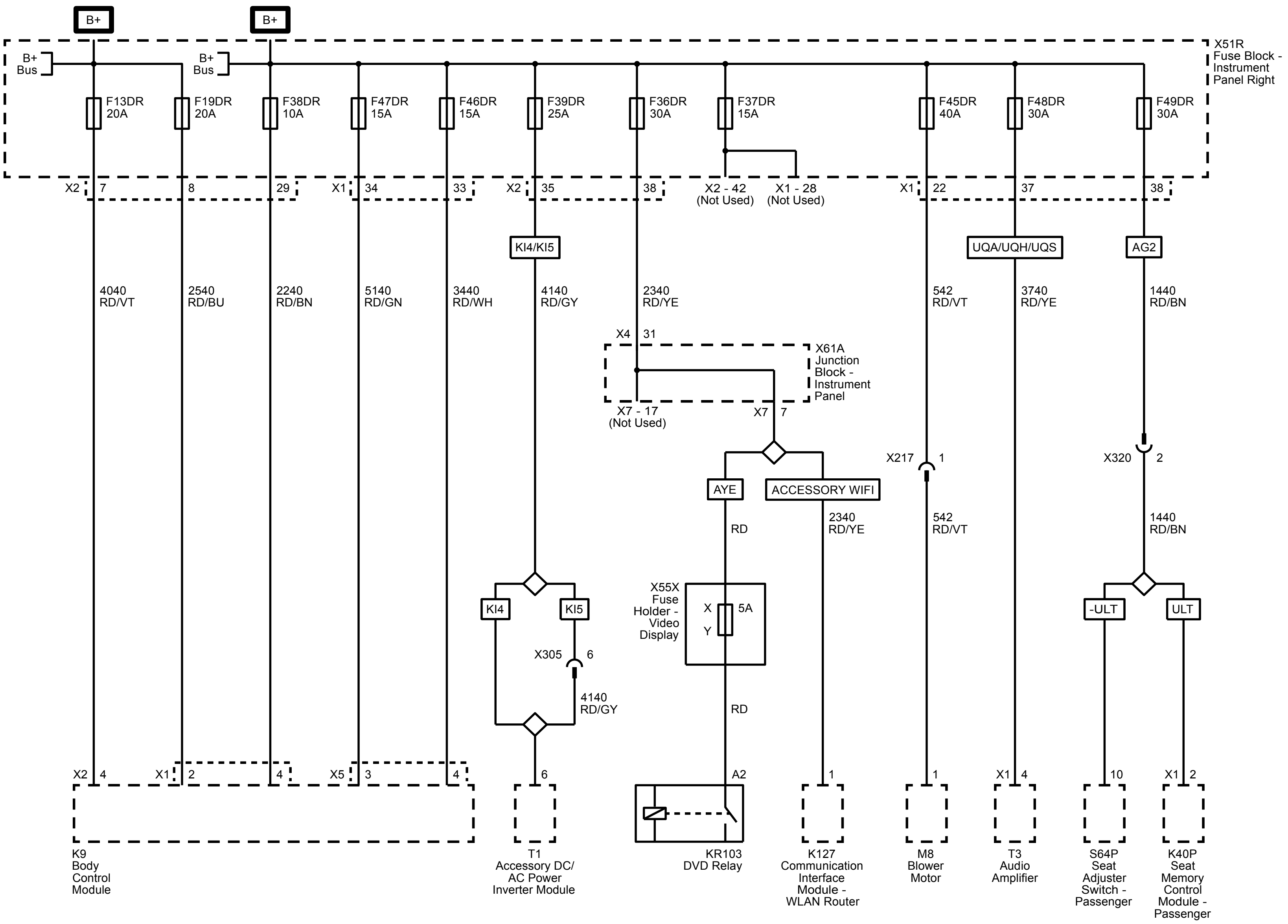
F4DL, F5DL, F6DL, F7DL, F8DL, F12DL, F16DL, F42DL, F43DL, F44DL and F50DL



B+
B+ Bus
X51L Fuse Block - Instrument Panel Left
F12DL 2A
F7DL 10A
F44DL 30A
F44DL 30A
F43DL 30A
F6DL 50A
F5DL 50A
30
KR76A Retained Accessory Power Relay 1
87
F8DL 10A
F4DL 15A
F50DL 15A
X2 3 4
X3 12
X1 25 27 36 37
X2 20 10
X3 11
X1 44
240 RD/YE
6740 RD/BU
5040 RD/YE
1842 RD/BU
1842 RD/BU
1040 RD/WH
4240 RD/BN
43 VT/YE
43 VT/YE
43 VT/YE
X316 17
VQ9
X310 2
X500 1
X700 1
D07
DT4-D07
-D07/DT4
X316 23
K4C
5W4/9C1
X300 20
CF5
X225 7
6817 YE
6136 BN
240 RD/YE
5040 RD/YE
1040 RD/WH
43 VT/YE
W9 Blunt Cut - Police Provision
Interior Lights Dimming Schematics
W8 Blunt Cut - Trailer Provision
X88/Z88
Z75
X307 1
43 VT/YE
43 VT/YE
X300 7
X2 50
X61A Junction Block - Instrument Panel
1842 RD/BU
1842 RD/BU
1040 RD/WH
43 VT/YE
X3 - 48 (Not Used)
X7 8
UG1
TRW
-A45
A45/ULT
X324 6
X313 1
-DT4
DT4
AYE
5W4/9C1
ACCESSORY WIFI
43 VT/YE
43 VT/YE
YE
43 VT/YE
43 YE
1 3 6 2 2 8 A A A 1 1 C2 9
S25 Garage Door Opener
S63 Roof Beacon Switch
S64D Seat Adjuster Switch - Driver
K40D Seat Memory Control Module - Driver
M74D Window Motor - Driver
S79LR Window Switch - Left Rear
X80G Accessory Power Receptacle - Instrument Panel
E32 Cigarette Lighter Receptacle
X80G Accessory Power Receptacle - Instrument Panel
M69 Sunroof Motor
T22 Mobile Device Wireless Charger Module
KR103 DVD Relay
W9 Blunt Cut - Police Provision
K127 Communication Interface Module - WLAN Router
L O C
D E S C

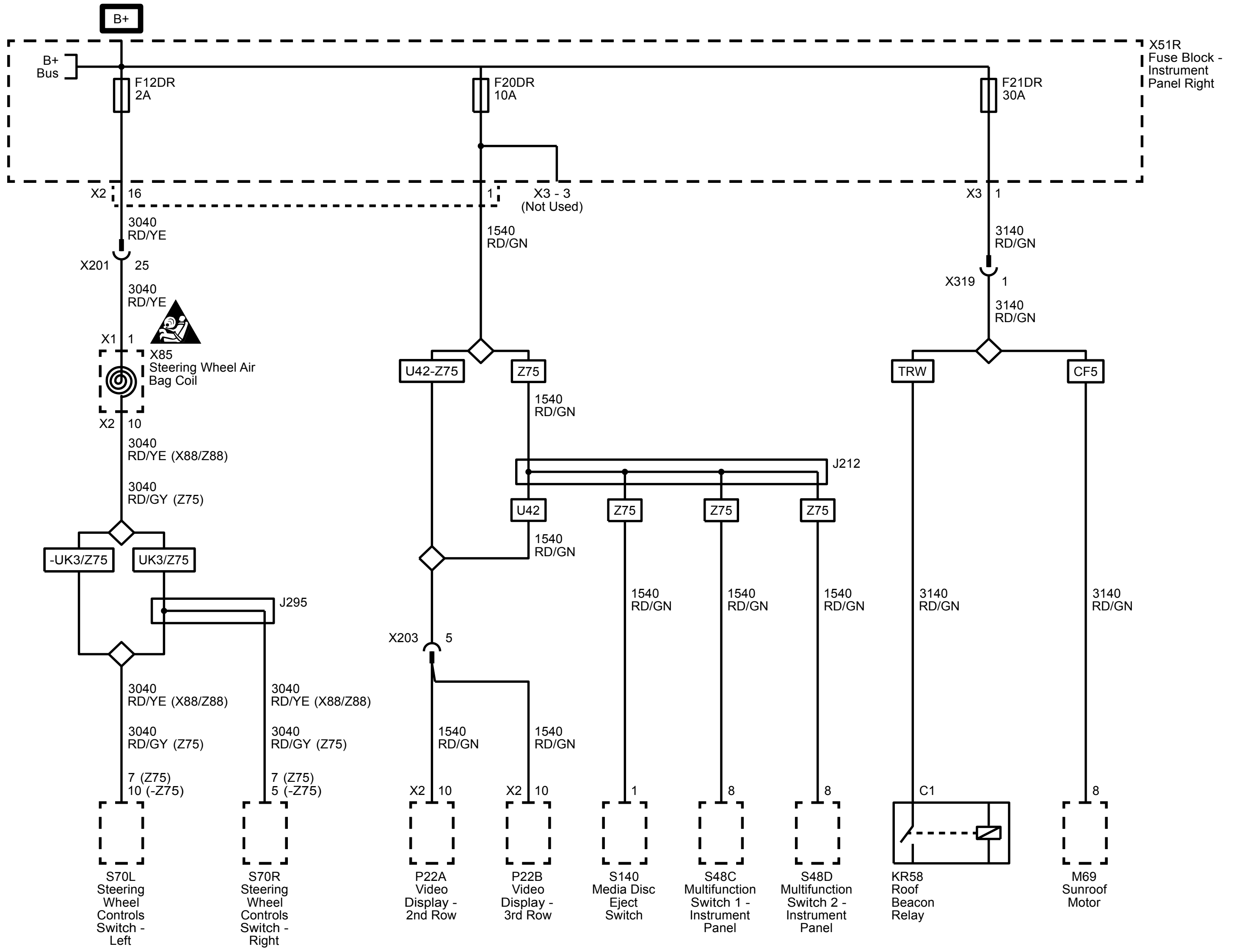

LOC
DESC
B+
B+
X51R
Fuse Block -
Instrument
Panel Right
F27DR
10A
F28DR
10A
F29DR
20A
F36DR
30A
F12DR
2A
F13DR
20A
F19DR
20A
F20DR
10A
F37DR
15A
F38DR
10A
F39DR
25A
F45DR
40A
F21DR
30A
F26DR
10A
F44DR
30A
F46DR
15A
F47DR
15A
F48DR
30A
F49DR
30A
F8DR
10A
KR147
Instrument
Panel
Compartment
Door Unlatch
Actuator
Relay
30
KR76B
Retained
Accessory
Power
Relay 2
87
F50DR
15A
F4DR
15A

F13DR, F19DR, F36DR, F37DR, F38DR, F39DR, F45DR, F46DR, F47DR, F48DR and F49DR

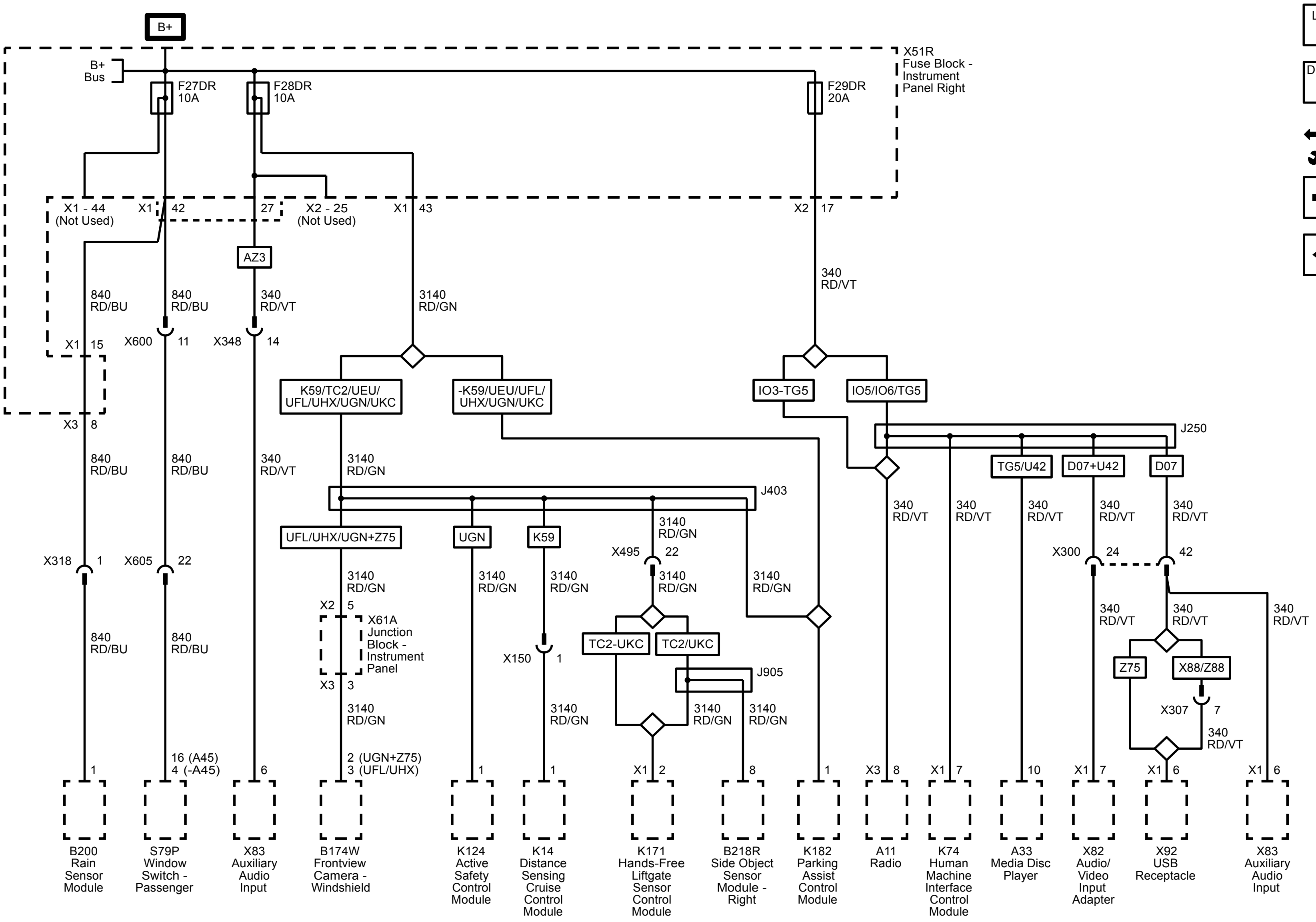


B+
B+
B+ Bus
B+ Bus
X51R Fuse Block - Instrument Panel Right
F13DR 20A
F19DR 20A
F38DR 10A
F47DR 15A
F46DR 15A
F39DR 25A
F36DR 30A
F37DR 15A
F45DR 40A
F48DR 30A
F49DR 30A
X2 7
8
29
X1 34
33
X2 35
38
X2 - 42 (Not Used)
X1 - 28 (Not Used)
X1 22
37
38
KI4/KI5
UQA/UQH/UQS
AG2
4040 RD/VT
2540 RD/BU
2240 RD/BN
5140 RD/GN
3440 RD/WH
4140 RD/GY
2340 RD/YE
542 RD/VT
3740 RD/YE
1440 RD/BN
X4 31
X61A Junction Block - Instrument Panel
X7 - 17 (Not Used)
X7 7
X217 1
X320 2
AYE
ACCESSORY WIFI
RD
2340 RD/YE
542 RD/VT
1440 RD/BN
KI4
KI5
X305 6
4140 RD/GY
X55X Fuse Holder - Video Display
X
Y
5A
RD
-ULT
ULT
X2 4
X1 2
4
X5 3
4
6
A2
1
1
X1 4
10
X1 2
K9 Body Control Module
T1 Accessory DC/ AC Power Inverter Module
KR103 DVD Relay
K127 Communication Interface Module - WLAN Router
M8 Blower Motor
T3 Audio Amplifier
S64P Seat Adjuster Switch - Passenger
K40P Seat Memory Control Module - Passenger

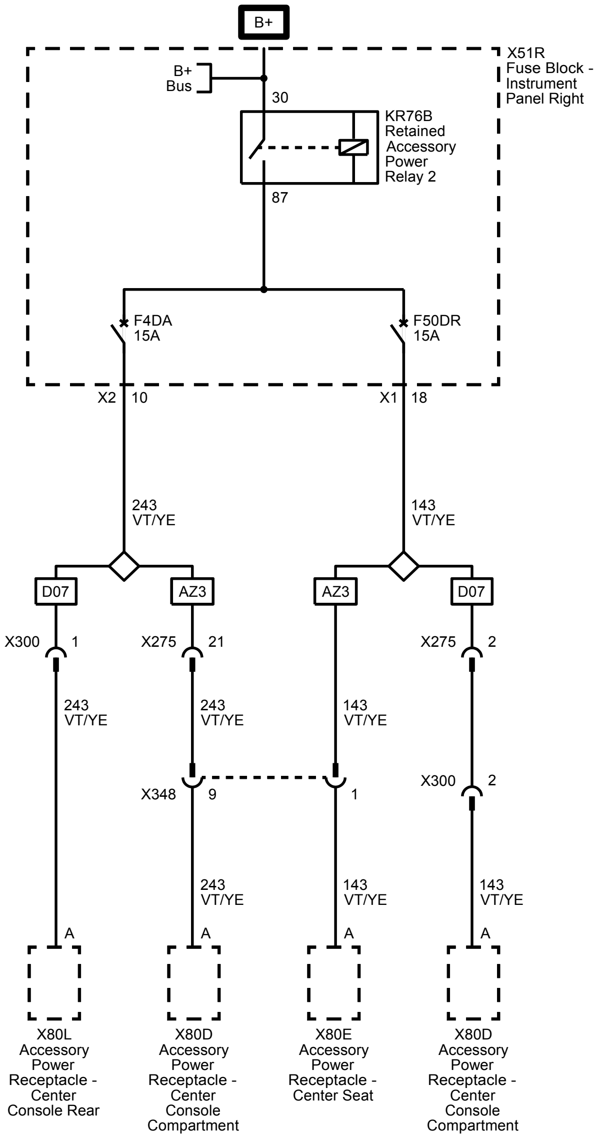
F12DR, F20DR and F21DR

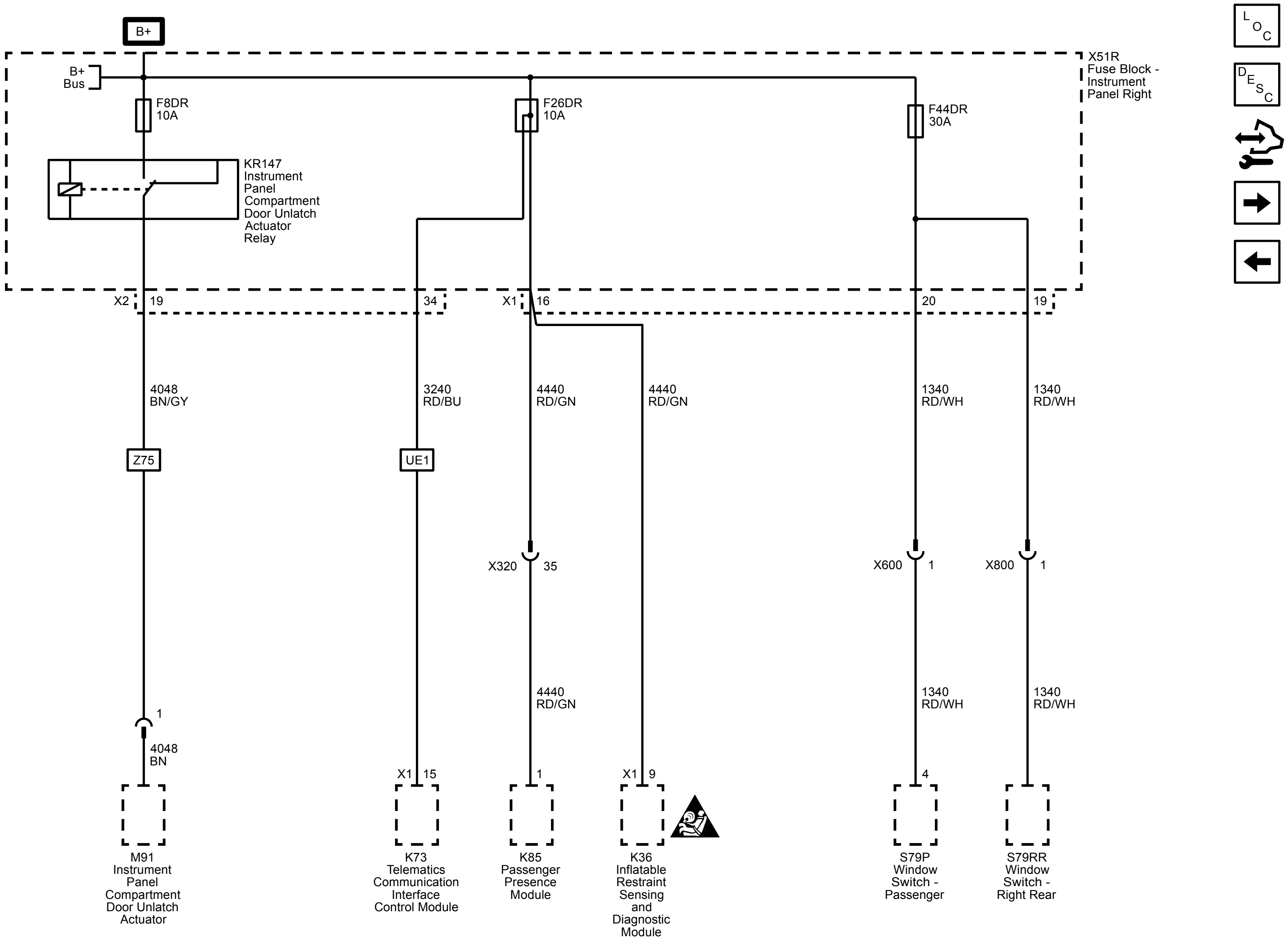

B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
F12DR 2A
F20DR 10A
F21DR 30A
X2 16
1
X3 - 3 (Not Used)
X3 1
3040 RD/YE
X201 25
3040 RD/YE
1540 RD/GN
3140 RD/GN
X319 1
3140 RD/GN
X1 1
X85 Steering Wheel Air Bag Coil
X2 10
3040 RD/YE (X88/Z88)
3040 RD/GY (Z75)
U42-Z75
Z75
TRW
CF5
1540 RD/GN
J212
U42
Z75
Z75
Z75
1540 RD/GN
-UK3/Z75
UK3/Z75
J295
1540 RD/GN
1540 RD/GN
1540 RD/GN
3140 RD/GN
3140 RD/GN
X203 5
3040 RD/YE (X88/Z88)
3040 RD/GY (Z75)
3040 RD/YE (X88/Z88)
3040 RD/GY (Z75)
1540 RD/GN
1540 RD/GN
7 (Z75) 10 (-Z75)
7 (Z75) 5 (-Z75)
X2 10
X2 10
1
8
8
C1
8
S70L Steering Wheel Controls Switch - Left
S70R Steering Wheel Controls Switch - Right
P22A Video Display - 2nd Row
P22B Video Display - 3rd Row
S140 Media Disc Eject Switch
S48C Multifunction Switch 1 - Instrument Panel
S48D Multifunction Switch 2 - Instrument Panel
KR58 Roof Beacon Relay
M69 Sunroof Motor

F27DR, F28DR and F29DR

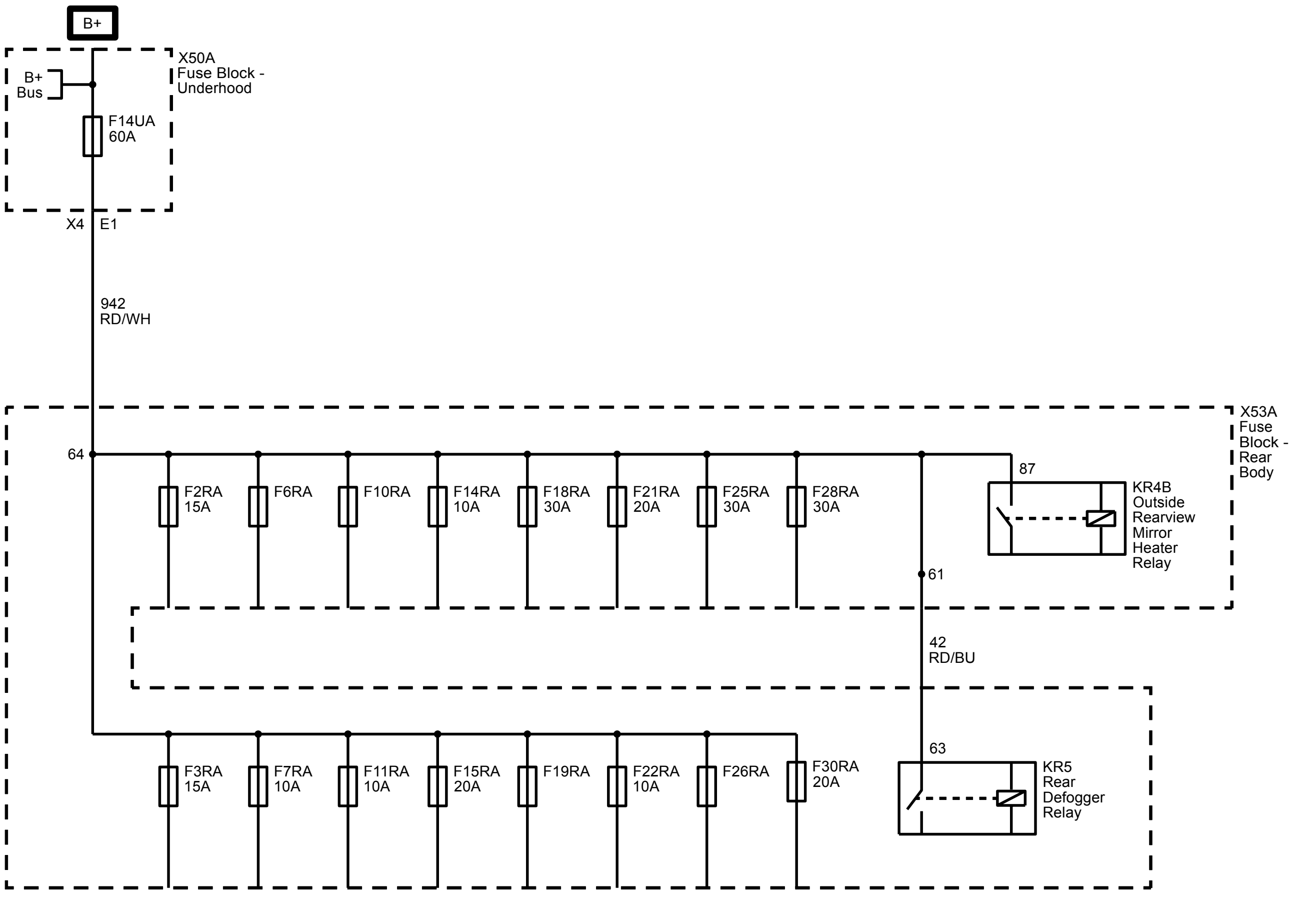

B+
B+ Bus
F27DR 10A
F28DR 10A
F29DR 20A
X51R Fuse Block - Instrument Panel Right
X1 - 44 (Not Used)
X1 42
27
X2 - 25 (Not Used)
X1 43
X2 17
AZ3
840 RD/BU
840 RD/BU
340 RD/VT
3140 RD/GN
340 RD/VT
X1 15
X600 11
X348 14
X3 8
K59/TC2/UEU/UFL/UHX/UGN/UKC
-K59/UEU/UFL/UHX/UGN/UKC
IO3-TG5
IO5/IO6/TG5
J250
J403
TG5/U42
D07+U42
D07
840 RD/BU
840 RD/BU
340 RD/VT
3140 RD/GN
UFL/UHX/UGN+Z75
UGN
K59
3140 RD/GN
X495 22
340 RD/VT
340 RD/VT
340 RD/VT
340 RD/VT
340 RD/VT
X318 1
X605 22
3140 RD/GN
3140 RD/GN
3140 RD/GN
3140 RD/GN
3140 RD/GN
X300 24
42
X2 5
X61A Junction Block - Instrument Panel
X3 3
840 RD/BU
840 RD/BU
X150 1
TC2-UKC
TC2/UKC
J905
340 RD/VT
340 RD/VT
340 RD/VT
Z75
X88/Z88
X307 7
340 RD/VT
3140 RD/GN
3140 RD/GN
3140 RD/GN
3140 RD/GN
1
16 (A45)
4 (-A45)
6
2 (UGN+Z75)
3 (UFL/UHX)
1
1
X1 2
8
1
X3 8
X1 7
10
X1 7
X1 6
X1 6
B200 Rain Sensor Module
S79P Window Switch - Passenger
X83 Auxiliary Audio Input
B174W Frontview Camera - Windshield
K124 Active Safety Control Module
K14 Distance Sensing Cruise Control Module
K171 Hands-Free Liftgate Sensor Control Module
B218R Side Object Sensor Module - Right
K182 Parking Assist Control Module
A11 Radio
K74 Human Machine Interface Control Module
A33 Media Disc Player
X82 Audio/Video Input Adapter
X92 USB Receptacle
X83 Auxiliary Audio Input

F4DR and F50DR

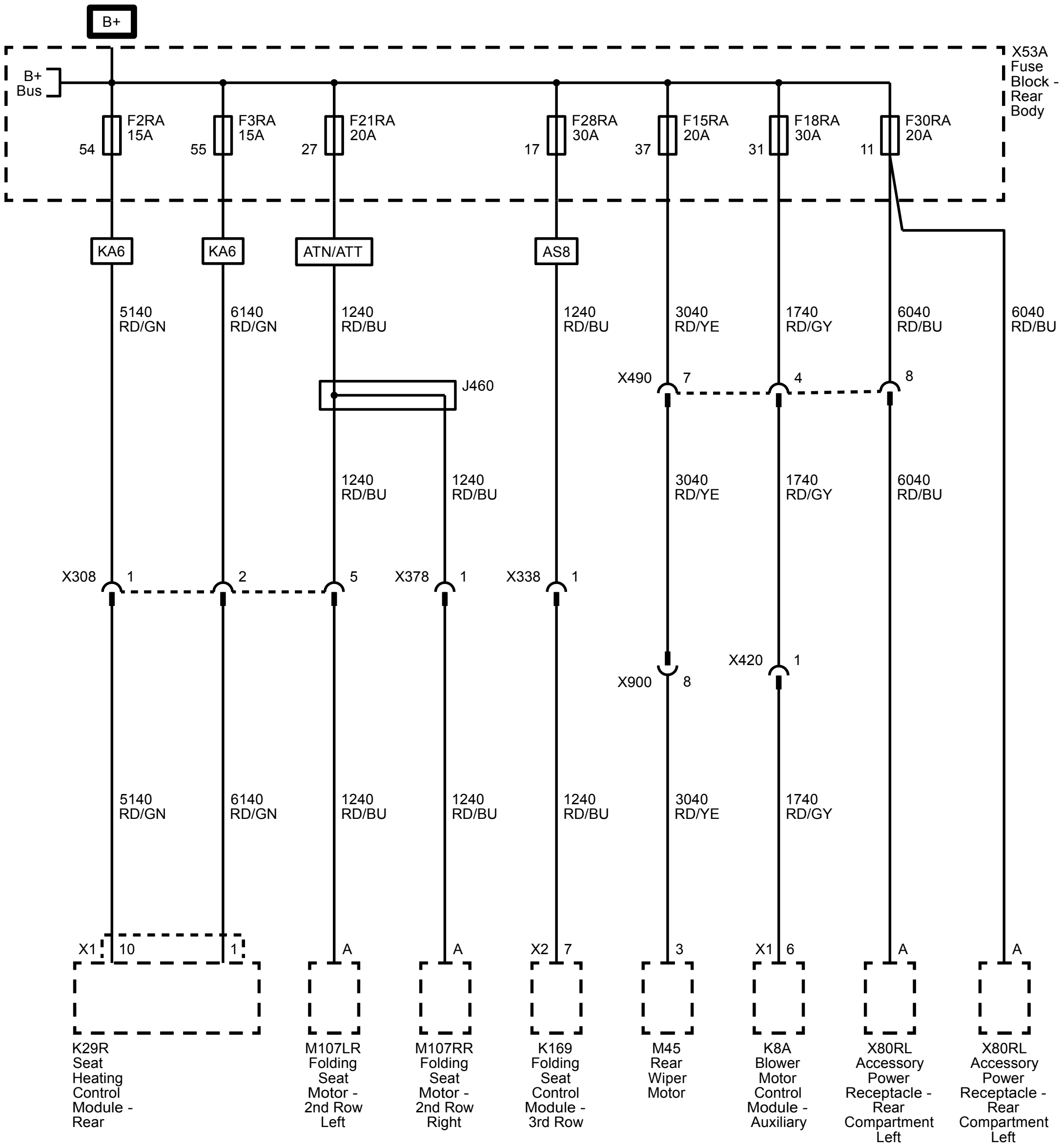

B+
X51R
Fuse Block -
Instrument
Panel Right
B+
Bus
30
KR76B
Retained
Accessory
Power
Relay 2
87
F4DA
15A
F50DR
15A
X2
10
X1
18
243
VT/YE
143
VT/YE
D07
AZ3
AZ3
D07
X300
1
X275
21
X275
2
243
VT/YE
243
VT/YE
143
VT/YE
X348
9
1
X300
2
243
VT/YE
143
VT/YE
143
VT/YE
A
A
A
A
X80L
Accessory
Power
Receptacle -
Center
Console Rear
X80D
Accessory
Power
Receptacle -
Center
Console
Compartment
X80E
Accessory
Power
Receptacle -
Center Seat
X80D
Accessory
Power
Receptacle -
Center
Console
Compartment


B+
B+ Bus
F8DR 10A
F26DR 10A
F44DR 30A
X51R Fuse Block - Instrument Panel Right
KR147 Instrument Panel Compartment Door Unlatch Actuator Relay
X2 19
34
X1 16
20
19
4048 BN/GY
3240 RD/BU
4440 RD/GN
4440 RD/GN
1340 RD/WH
1340 RD/WH
Z75
UE1
X320 35
X600 1
X800 1
1
4048 BN
4440 RD/GN
1340 RD/WH
1340 RD/WH
X1 15
1
X1 9
4
M91 Instrument Panel Compartment Door Unlatch Actuator
K73 Telematics Communication Interface Control Module
K85 Passenger Presence Module
K36 Inflatable Restraint Sensing and Diagnostic Module
S79P Window Switch - Passenger
S79RR Window Switch - Right Rear
LOC
DESC

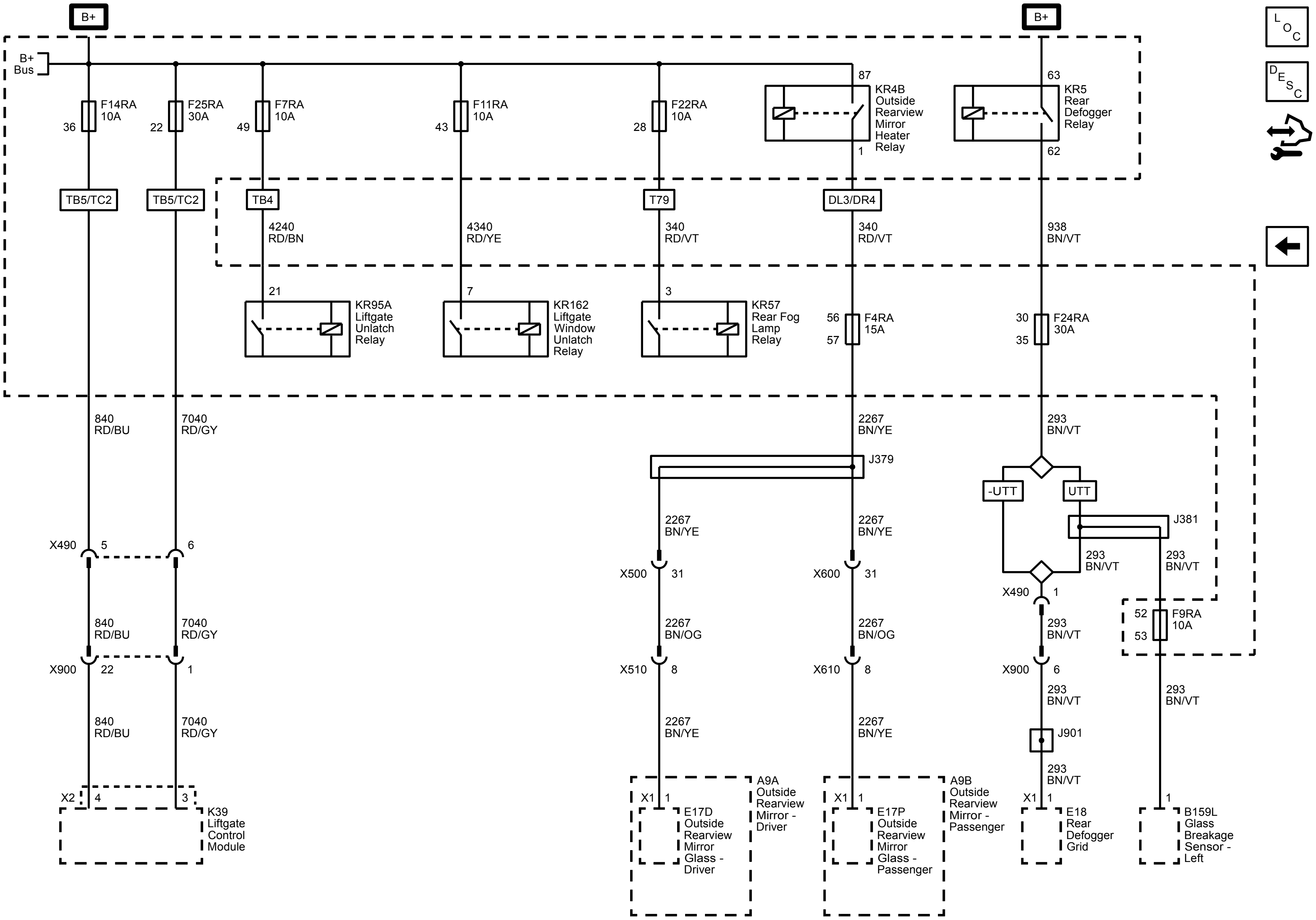
X53A Fuse Block - Rear Body Bussing


B+
B+ Bus
X50A Fuse Block - Underhood
F14UA 60A
X4
E1
942 RD/WH
X53A Fuse Block - Rear Body
64
F2RA 15A
F6RA
F10RA
F14RA 10A
F18RA 30A
F21RA 20A
F25RA 30A
F28RA 30A
87
KR4B Outside Rearview Mirror Heater Relay
61
42 RD/BU
F3RA 15A
F7RA 10A
F11RA 10A
F15RA 20A
F19RA
F22RA 10A
F26RA
F30RA 20A
63
KR5 Rear Defogger Relay

F2RA, F3RA, F15RA, F18RA, F21RA, F28RA and F30RA

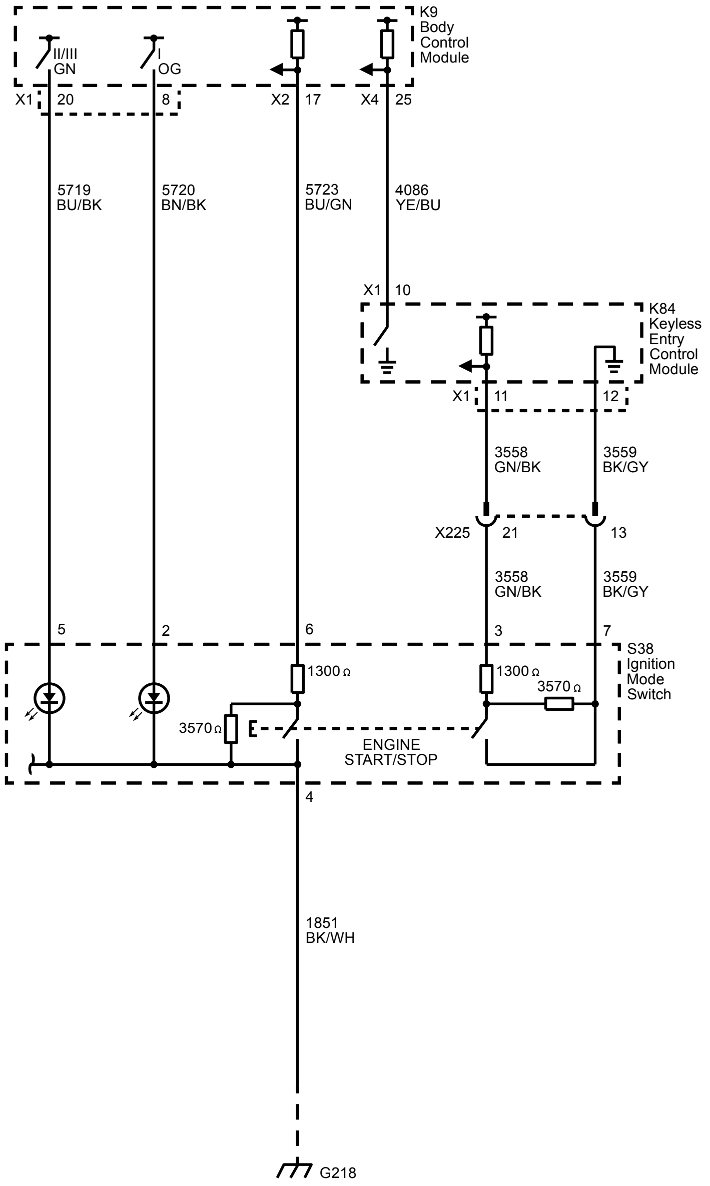

B+
B+ Bus
X53A Fuse Block - Rear Body
F2RA 15A
54
F3RA 15A
55
F21RA 20A
27
F28RA 30A
17
F15RA 20A
37
F18RA 30A
31
F30RA 20A
11
KA6
KA6
ATN/ATT
AS8
5140 RD/GN
6140 RD/GN
1240 RD/BU
1240 RD/BU
3040 RD/YE
1740 RD/GY
6040 RD/BU
6040 RD/BU
J460
X490
7
4
8
1240 RD/BU
1240 RD/BU
3040 RD/YE
1740 RD/GY
6040 RD/BU
X308
1
2
5
X378
1
X338
1
X900
8
X420
1
5140 RD/GN
6140 RD/GN
1240 RD/BU
1240 RD/BU
1240 RD/BU
3040 RD/YE
1740 RD/GY
X1
10
1
A
A
X2
7
3
X1
6
A
A
K29R Seat Heating Control Module - Rear
M107LR Folding Seat Motor - 2nd Row Left
M107RR Folding Seat Motor - 2nd Row Right
K169 Folding Seat Control Module - 3rd Row
M45 Rear Wiper Motor
K8A Blower Motor Control Module - Auxiliary
X80RL Accessory Power Receptacle - Rear Compartment Left
X80RL Accessory Power Receptacle - Rear Compartment Left

F4RA, F7RA, F9RA, F11RA, F14RA, F22RA, F24RA and F25RA

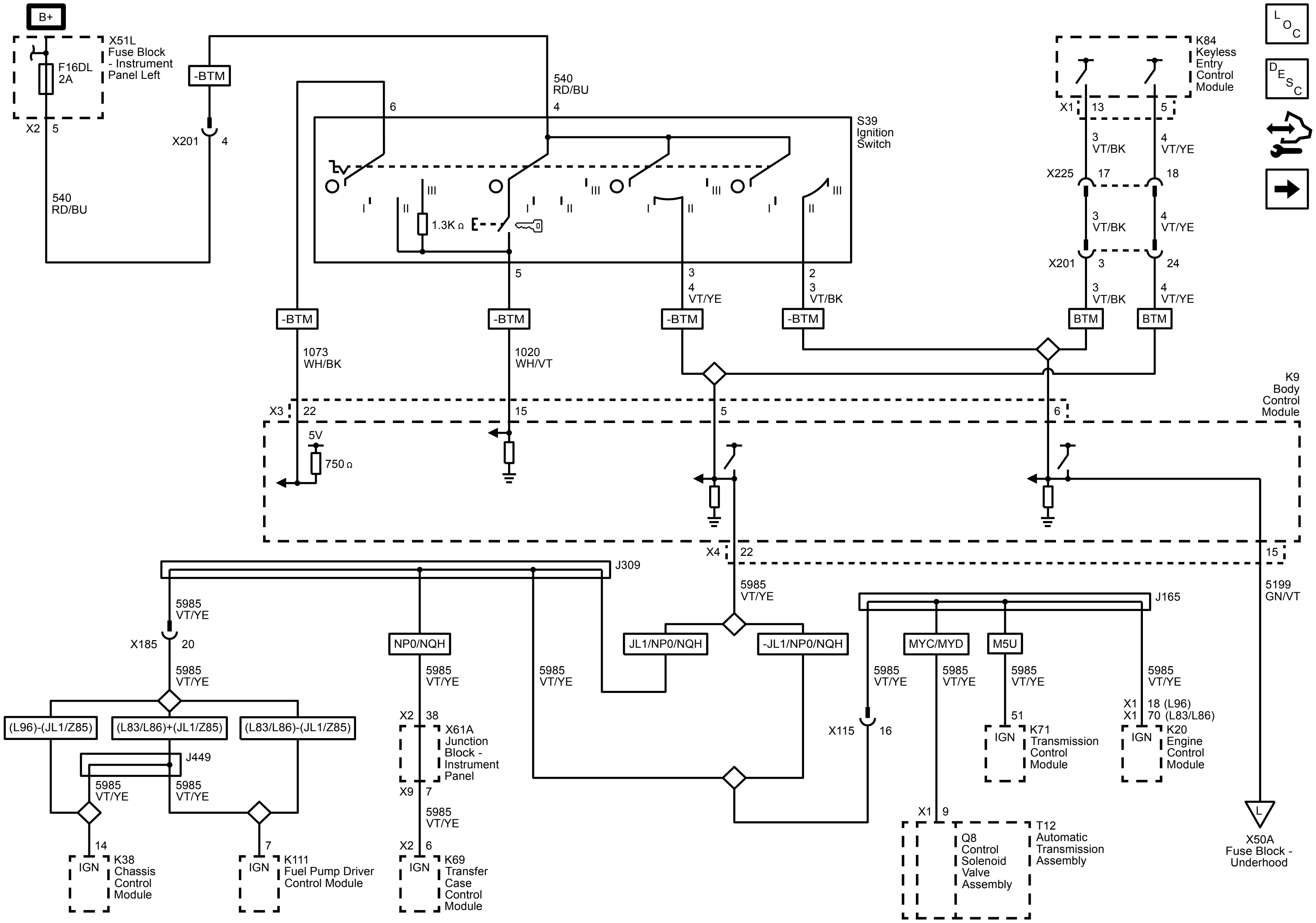

B+
B+
B+ Bus
F14RA 10A
36
F25RA 30A
22
F7RA 10A
49
F11RA 10A
43
F22RA 10A
28
87
KR4B Outside Rearview Mirror Heater Relay
1
63
KR5 Rear Defogger Relay
62
TB5/TC2
TB5/TC2
TB4
T79
DL3/DR4
4240 RD/BN
4340 RD/YE
340 RD/VT
340 RD/VT
938 BN/VT
21
KR95A Liftgate Unlatch Relay
7
KR162 Liftgate Window Unlatch Relay
3
KR57 Rear Fog Lamp Relay
56
57
F4RA 15A
30
35
F24RA 30A
840 RD/BU
7040 RD/GY
2267 BN/YE
293 BN/VT
J379
-UTT
UTT
J381
2267 BN/YE
2267 BN/YE
X490
5
6
X500
31
X600
31
293 BN/VT
293 BN/VT
X490
1
52
53
F9RA 10A
840 RD/BU
7040 RD/GY
2267 BN/OG
2267 BN/OG
293 BN/VT
X900
22
1
X510
8
X610
8
X900
6
293 BN/VT
293 BN/VT
840 RD/BU
7040 RD/GY
2267 BN/YE
2267 BN/YE
J901
293 BN/VT
X2
4
3
K39 Liftgate Control Module
A9A Outside Rearview Mirror - Driver
X1
1
E17D Outside Rearview Mirror Glass - Driver
A9B Outside Rearview Mirror - Passenger
X1
1
E17P Outside Rearview Mirror Glass - Passenger
X1
1
E18 Rear Defogger Grid
1
B159L Glass Breakage Sensor - Left
LOC
DESC

Ignition Mode Switch (BTM)

LOC
DESC

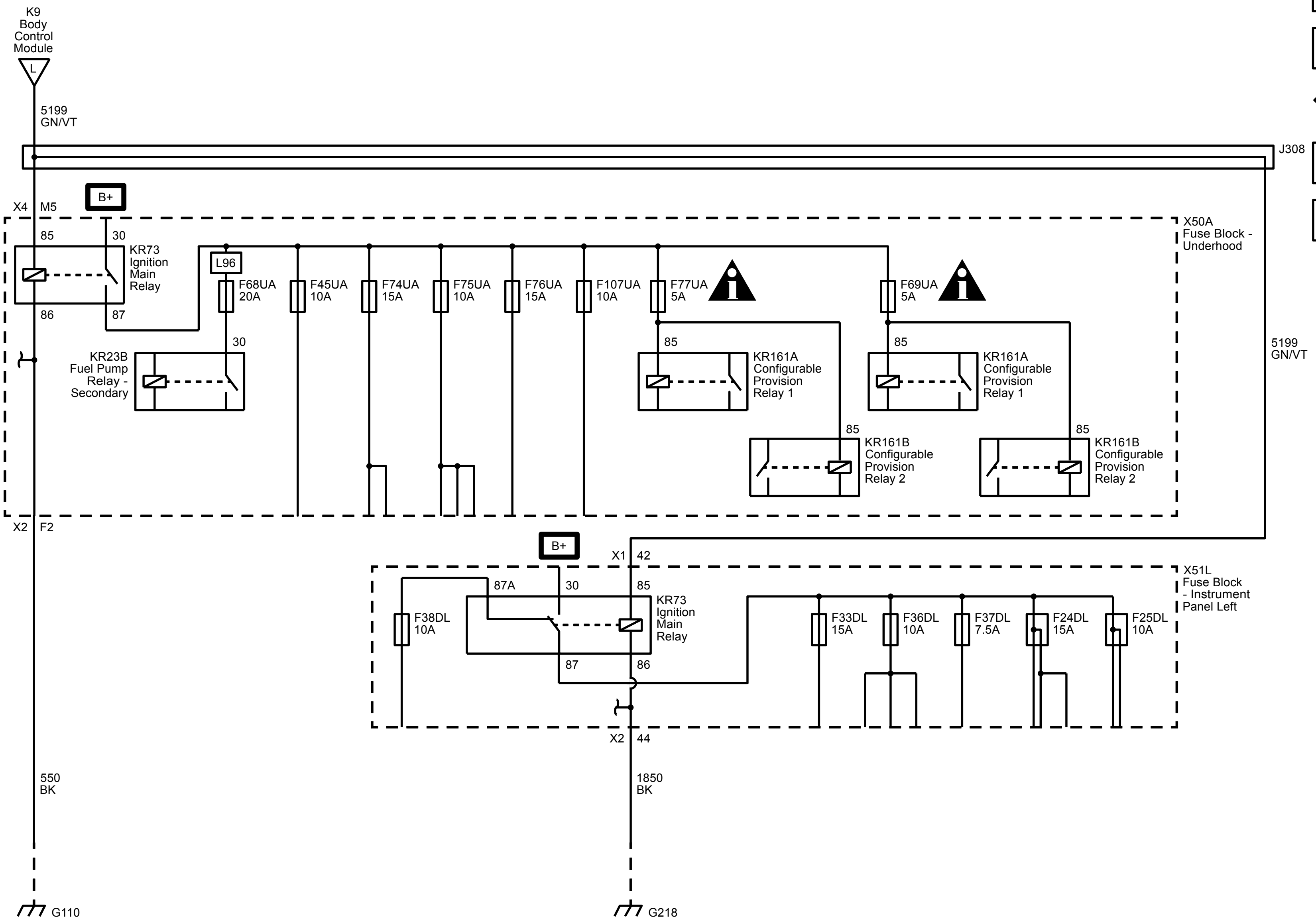

K9
Body
Control
Module
II/III
GN
I
OG
X1
20
8
X2
17
X4
25
5719
BU/BK
5720
BN/BK
5723
BU/GN
4086
YE/BU
X1
10
K84
Keyless
Entry
Control
Module
X1
11
12
3558
GN/BK
3559
BK/GY
X225
21
13
3558
GN/BK
3559
BK/GY
5
2
6
3
7
S38
Ignition
Mode
Switch
1300 Ω
1300 Ω
3570 Ω
3570 Ω
ENGINE
START/STOP
4
1851
BK/WH
G218

Ignition Switch (without BTM) and Ignition Power

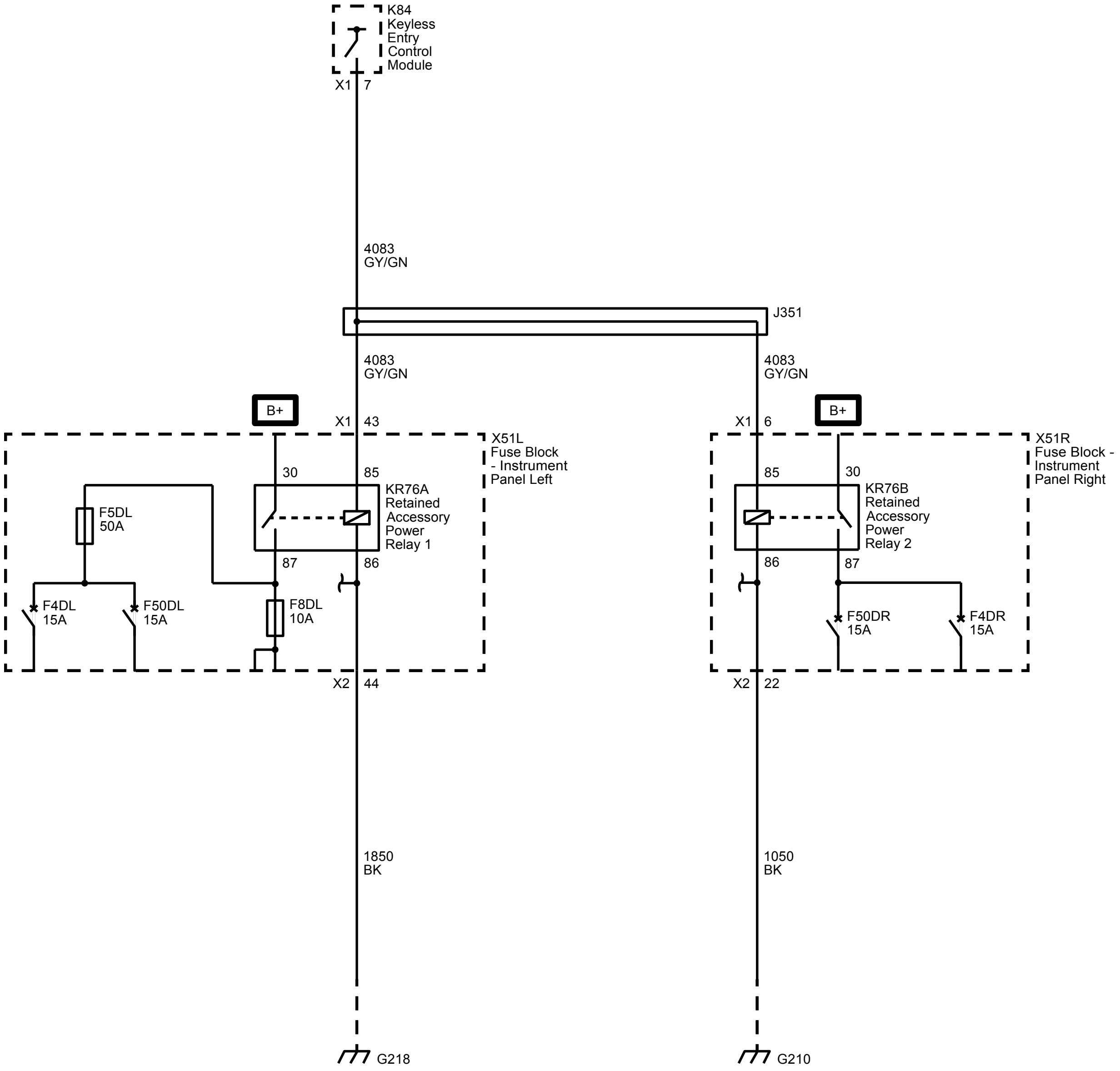


B+
X51L Fuse Block - Instrument Panel Left
F16DL 2A
X2 5
540 RD/BU
-BTM
X201 4
540 RD/BU
4
6
S39 Ignition Switch
1.3K Ω
I
II
III
5
3
4 VT/YE
2
3 VT/BK
-BTM
-BTM
-BTM
-BTM
1073 WH/BK
1020 WH/VT
K84 Keyless Entry Control Module
X1 13
5
3 VT/BK
4 VT/YE
X225 17
18
3 VT/BK
4 VT/YE
X201 3
24
3 VT/BK
4 VT/YE
BTM
BTM
K9 Body Control Module
X3 22
15
5
6
5V
750 Ω
X4 22
15
5985 VT/YE
5199 GN/VT
J309
5985 VT/YE
X185 20
5985 VT/YE
(L96)-(JL1/Z85)
(L83/L86)+(JL1/Z85)
(L83/L86)-(JL1/Z85)
J449
5985 VT/YE
5985 VT/YE
14
K38 Chassis Control Module
IGN
7
K111 Fuel Pump Driver Control Module
IGN
NP0/NQH
5985 VT/YE
X2 38
X61A Junction Block - Instrument Panel
X9 7
5985 VT/YE
X2 6
IGN
K69 Transfer Case Control Module
5985 VT/YE
JL1/NP0/NQH
-JL1/NP0/NQH
J165
5985 VT/YE
X115 16
MYC/MYD
5985 VT/YE
X1 9
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
M5U
5985 VT/YE
51
IGN
K71 Transmission Control Module
5985 VT/YE
X1 18 (L96)
X1 70 (L83/L86)
IGN
K20 Engine Control Module
L
X50A Fuse Block - Underhood
LOC
DESC

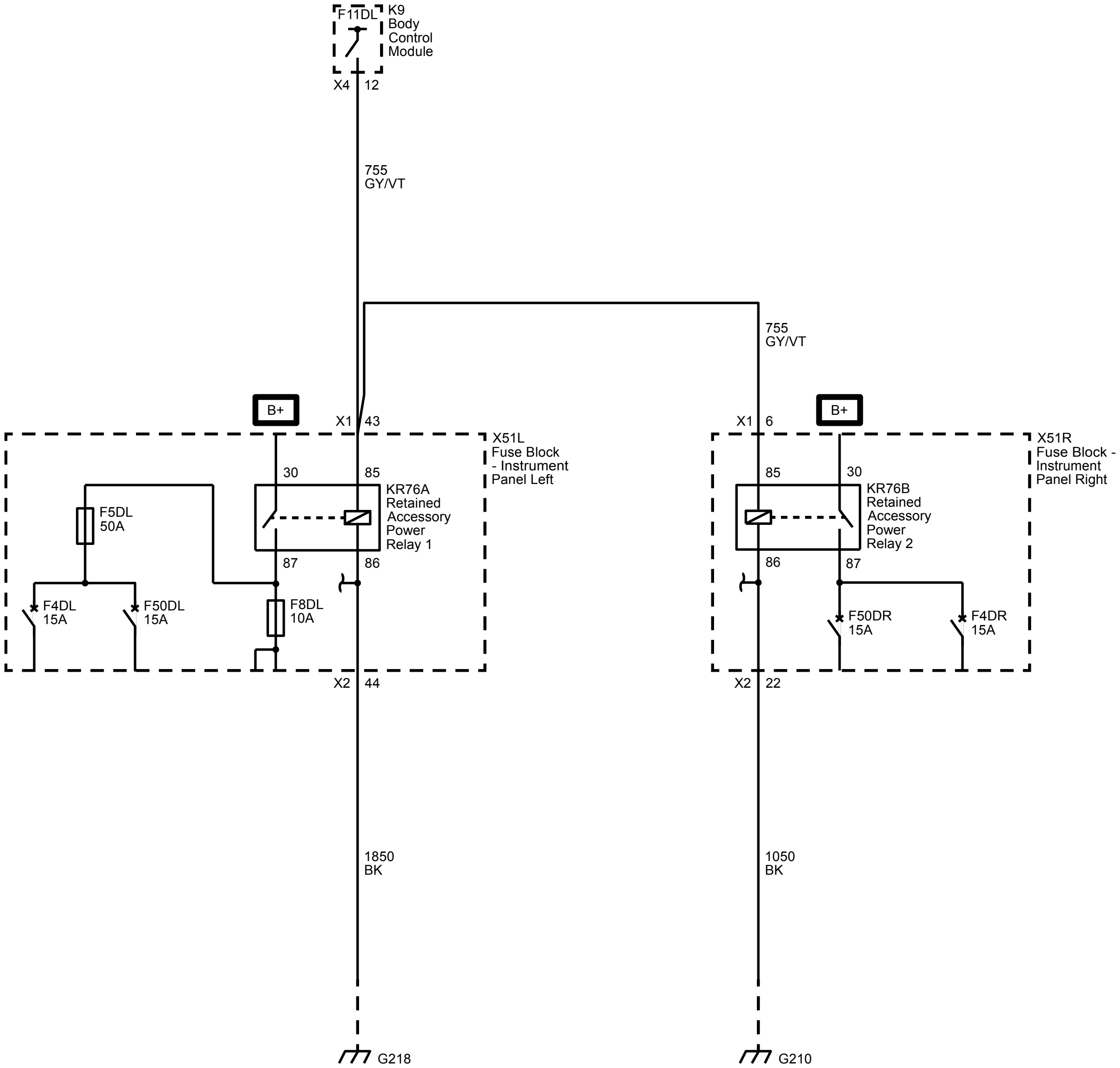
Ignition Main Relay


K9
Body
Control
Module
L
5199
GN/VT
J308
B+
X4
M5
85
30
KR73
Ignition
Main
Relay
86
87
X50A
Fuse Block -
Underhood
L96
F68UA
20A
F45UA
10A
F74UA
15A
F75UA
10A
F76UA
15A
F107UA
10A
F77UA
5A
F69UA
5A
30
KR23B
Fuel Pump
Relay -
Secondary
85
KR161A
Configurable
Provision
Relay 1
85
KR161A
Configurable
Provision
Relay 1
85
KR161B
Configurable
Provision
Relay 2
85
KR161B
Configurable
Provision
Relay 2
5199
GN/VT
X2
F2
B+
X1
42
X51L
Fuse Block
- Instrument
Panel Left
87A
30
85
KR73
Ignition
Main
Relay
F38DL
10A
F33DL
15A
F36DL
10A
F37DL
7.5A
F24DL
15A
F25DL
10A
87
86
X2
44
550
BK
1850
BK
G110
G218

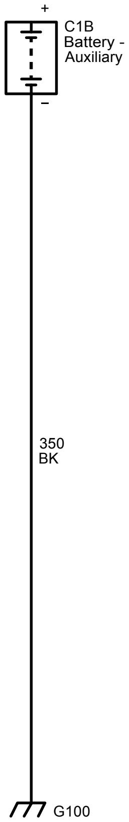
Accessory Power (BTM)


K84
Keyless
Entry
Control
Module
X1
7
4083
GY/GN
J351
4083
GY/GN
4083
GY/GN
B+
X1
43
X51L
Fuse Block
- Instrument
Panel Left
30
85
KR76A
Retained
Accessory
Power
Relay 1
F5DL
50A
87
86
F4DL
15A
F50DL
15A
F8DL
10A
X2
44
1850
BK
G218
B+
X1
6
X51R
Fuse Block -
Instrument
Panel Right
85
30
KR76B
Retained
Accessory
Power
Relay 2
86
87
F50DR
15A
F4DR
15A
X2
22
1050
BK
G210

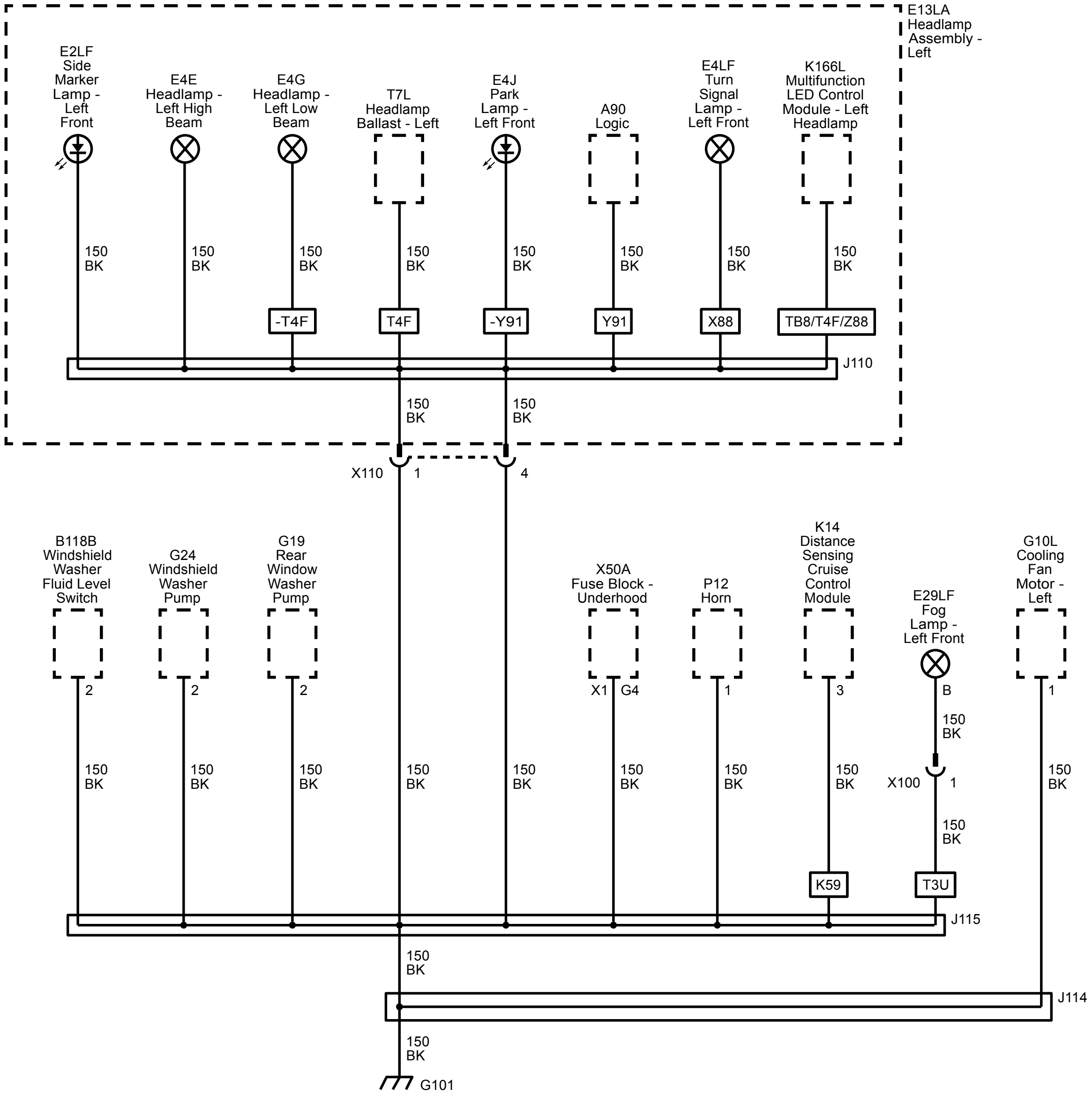
Accessory Power (without BTM)

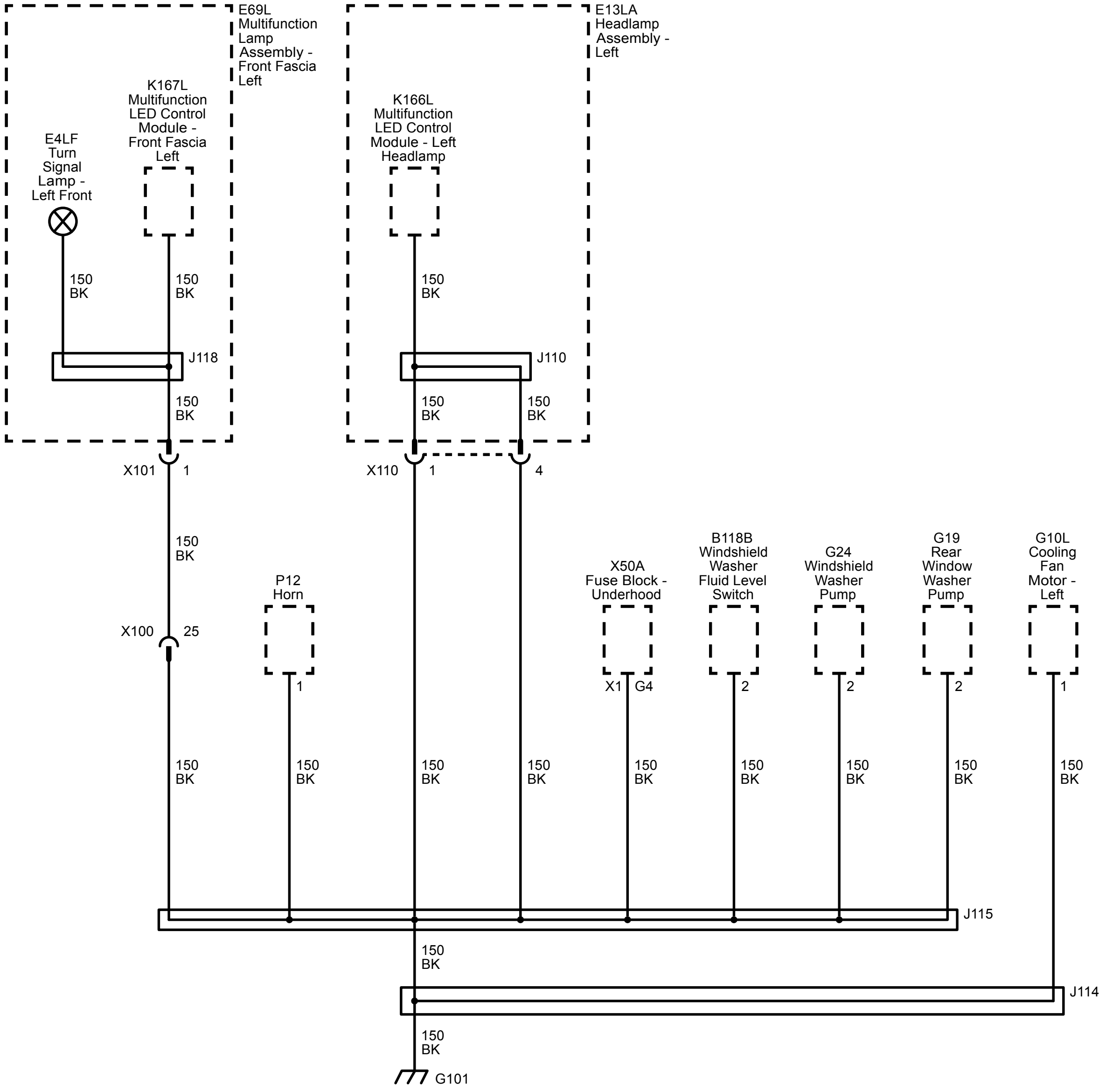

F11DL
K9
Body
Control
Module
X4
12
755
GY/VT
755
GY/VT
B+
X1
43
X51L
Fuse Block
- Instrument
Panel Left
30
85
KR76A
Retained
Accessory
Power
Relay 1
F5DL
50A
87
86
F4DL
15A
F50DL
15A
F8DL
10A
X2
44
1850
BK
G218
B+
X1
6
X51R
Fuse Block -
Instrument
Panel Right
85
30
KR76B
Retained
Accessory
Power
Relay 2
86
87
F50DR
15A
F4DR
15A
X2
22
1050
BK
G210

G100 (5W4, 9C1 or L96)

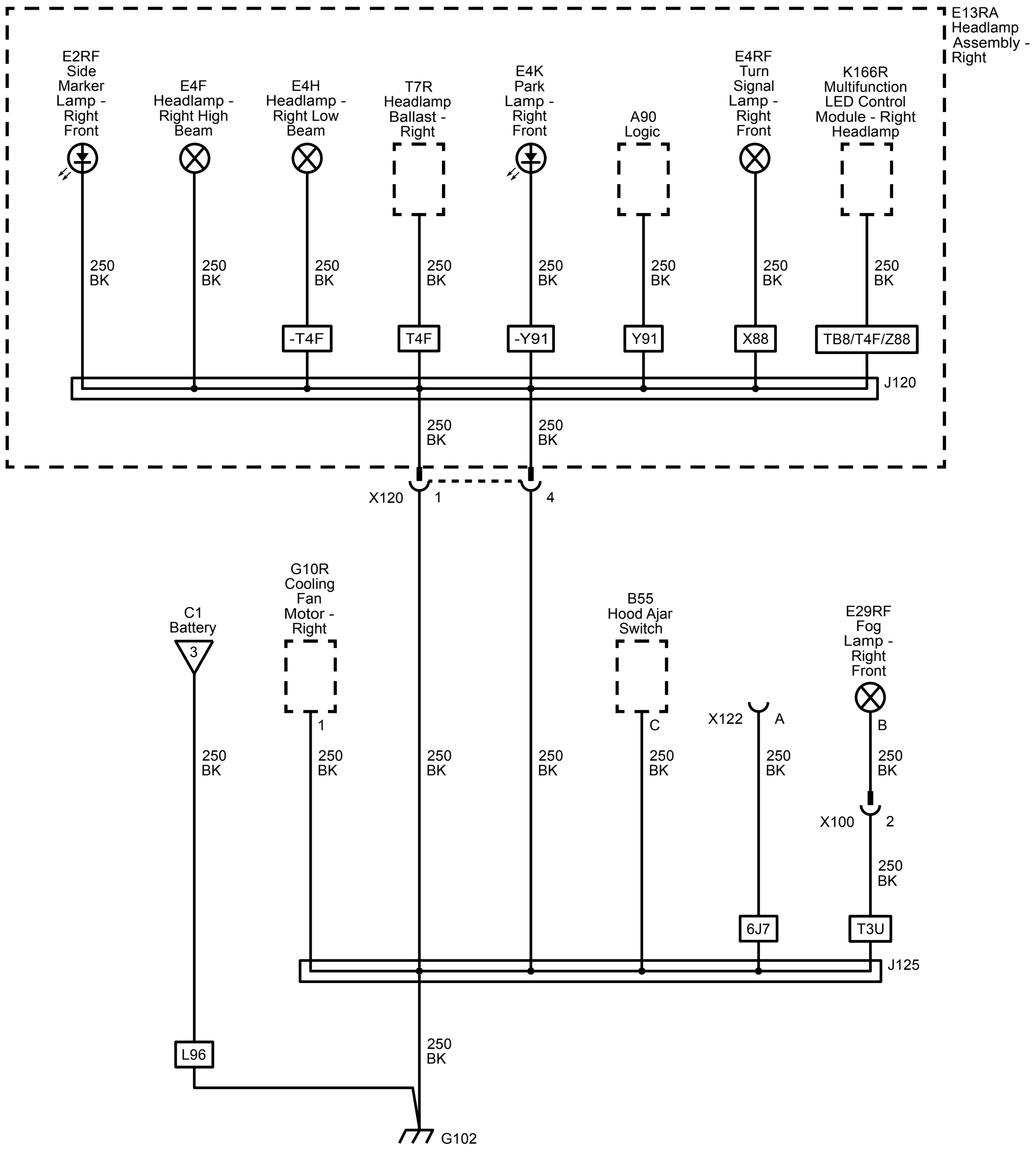

+
C1B
Battery -
Auxiliary
–
350
BK
G100

G101 (X88 or Z88)

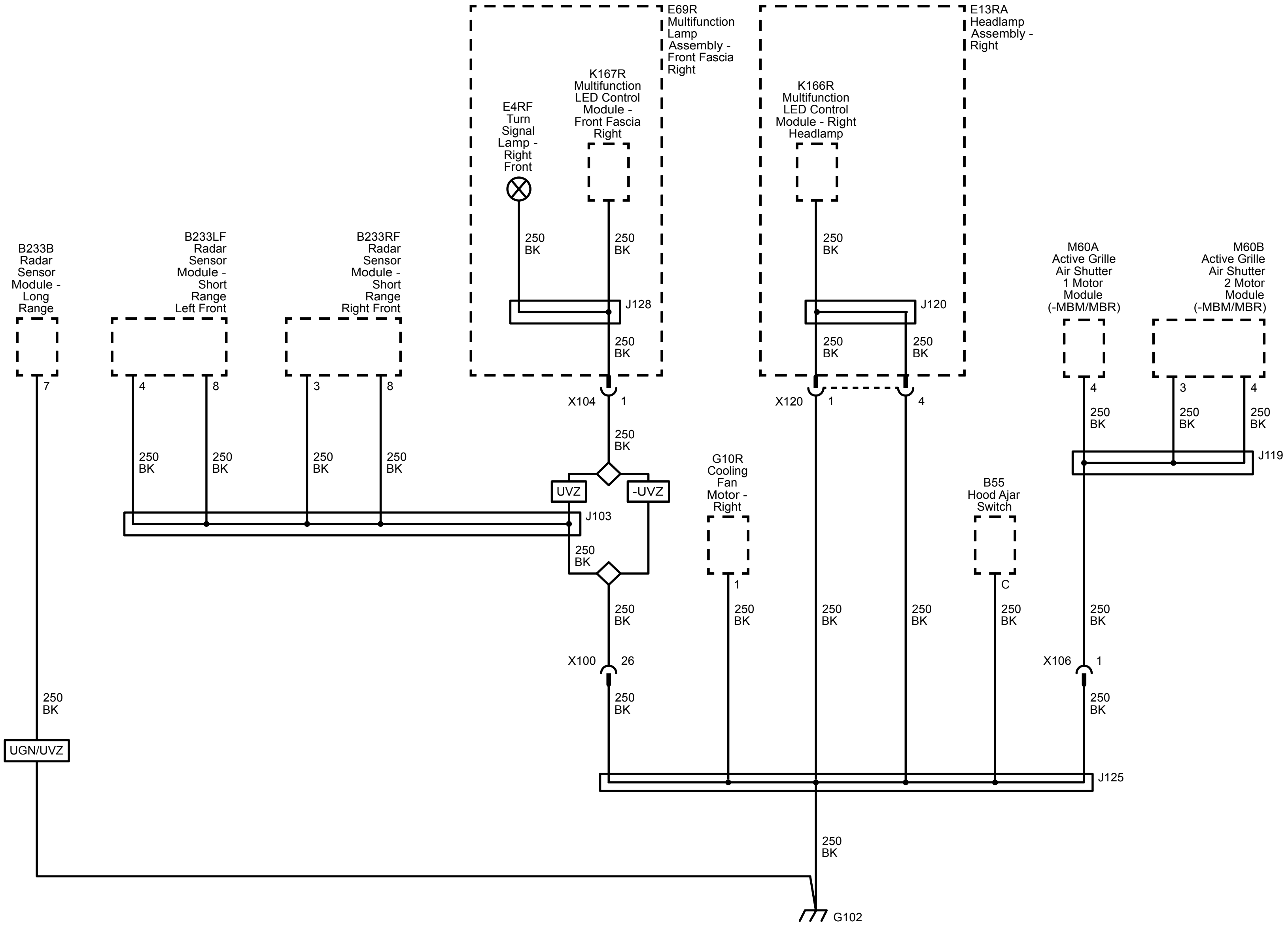

E13LA
Headlamp
Assembly -
Left
E2LF
Side
Marker
Lamp -
Left
Front
E4E
Headlamp -
Left High
Beam
E4G
Headlamp -
Left Low
Beam
T7L
Headlamp
Ballast - Left
E4J
Park
Lamp -
Left Front
A90
Logic
E4LF
Turn
Signal
Lamp -
Left Front
K166L
Multifunction
LED Control
Module - Left
Headlamp
150
BK
-T4F
T4F
-Y91
Y91
X88
TB8/T4F/Z88
J110
X110
1
4
B118B
Windshield
Washer
Fluid Level
Switch
G24
Windshield
Washer
Pump
G19
Rear
Window
Washer
Pump
X50A
Fuse Block -
Underhood
P12
Horn
K14
Distance
Sensing
Cruise
Control
Module
E29LF
Fog
Lamp -
Left Front
G10L
Cooling
Fan
Motor -
Left
2
2
2
X1
G4
1
3
B
1
X100
1
K59
T3U
J115
J114
G101

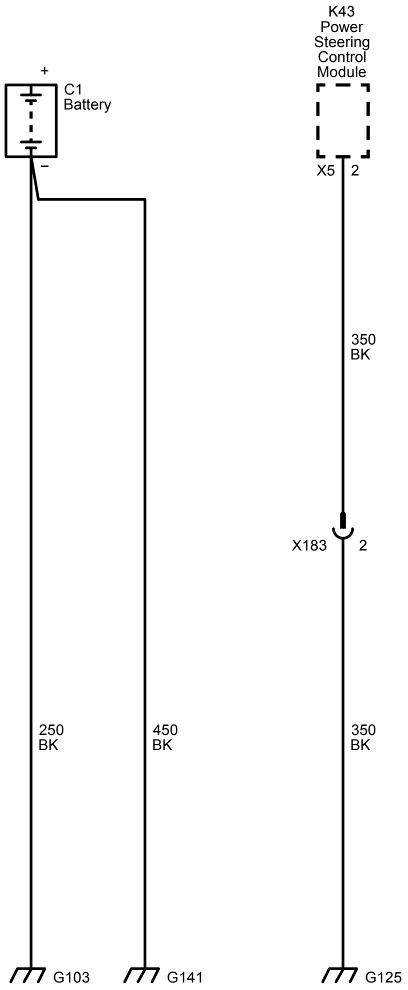

E69L Multifunction Lamp Assembly - Front Fascia Left
K167L Multifunction LED Control Module - Front Fascia Left
E4LF Turn Signal Lamp - Left Front
150 BK
150 BK
J118
150 BK
X101
1
150 BK
X100
25
150 BK
E13LA Headlamp Assembly - Left
K166L Multifunction LED Control Module - Left Headlamp
150 BK
J110
150 BK
150 BK
X110
1
4
P12 Horn
1
150 BK
X50A Fuse Block - Underhood
X1
G4
150 BK
B118B Windshield Washer Fluid Level Switch
2
150 BK
G24 Windshield Washer Pump
2
150 BK
G19 Rear Window Washer Pump
2
150 BK
G10L Cooling Fan Motor - Left
1
150 BK
150 BK
150 BK
J115
150 BK
J114
150 BK
G101

G102 (X88 or Z88)

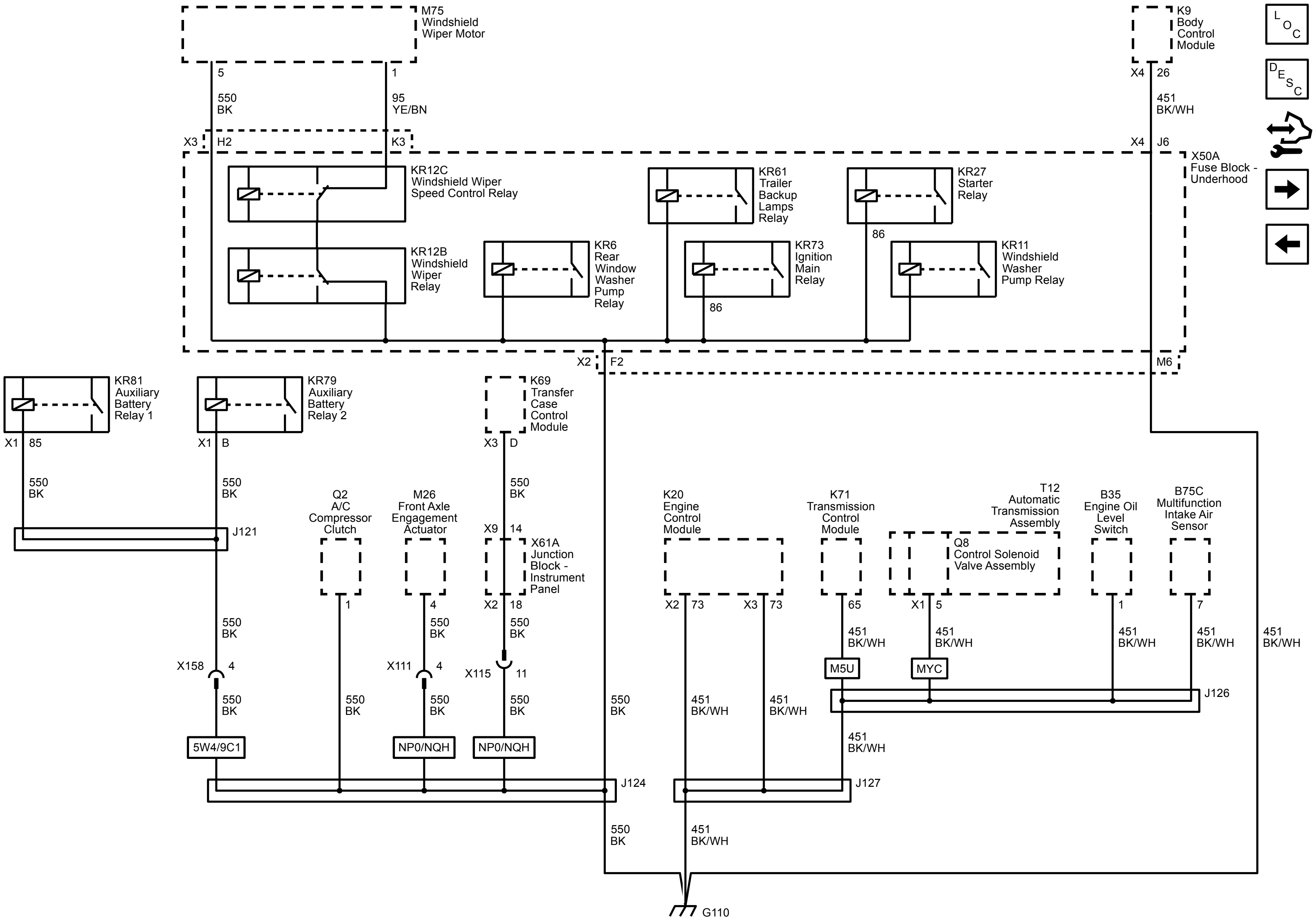

E13RA Headlamp Assembly - Right
E2RF Side Marker Lamp - Right Front
E4F Headlamp - Right High Beam
E4H Headlamp - Right Low Beam
T7R Headlamp Ballast - Right
E4K Park Lamp - Right Front
A90 Logic
E4RF Turn Signal Lamp - Right Front
K166R Multifunction LED Control Module - Right Headlamp
250 BK
-T4F
T4F
-Y91
Y91
X88
TB8/T4F/Z88
J120
X120
1
4
C1 Battery
3
G10R Cooling Fan Motor - Right
B55 Hood Ajar Switch
C
X122
A
E29RF Fog Lamp - Right Front
B
X100
2
6J7
T3U
J125
L96
G102

G102 (Z75)

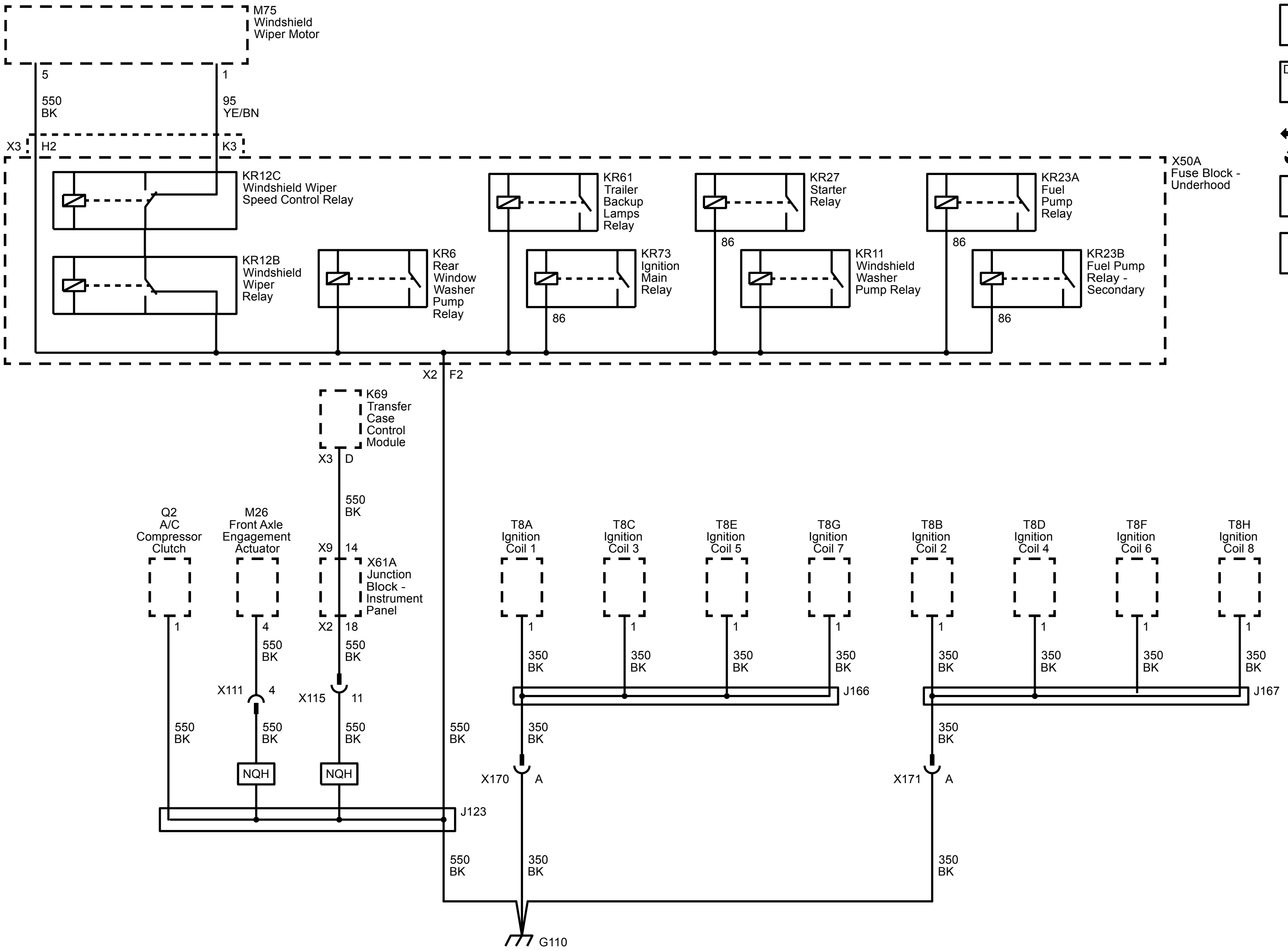

E69R Multifunction Lamp Assembly - Front Fascia Right
E4RF Turn Signal Lamp - Right Front
K167R Multifunction LED Control Module - Front Fascia Right
E13RA Headlamp Assembly - Right
K166R Multifunction LED Control Module - Right Headlamp
B233B Radar Sensor Module - Long Range
B233LF Radar Sensor Module - Short Range Left Front
B233RF Radar Sensor Module - Short Range Right Front
M60A Active Grille Air Shutter 1 Motor Module (-MBM/MBR)
M60B Active Grille Air Shutter 2 Motor Module (-MBM/MBR)
G10R Cooling Fan Motor - Right
B55 Hood Ajar Switch
J128
J120
J119
J103
J125
X104
X120
X100
X106
UVZ
-UVZ
UGN/UVZ
250 BK
1
4
7
8
3
26
C
G102


K43
Power
Steering
Control
Module
+
C1
Battery
−
X5
2
350
BK
X183
2
250
BK
450
BK
350
BK
G103
G141
G125

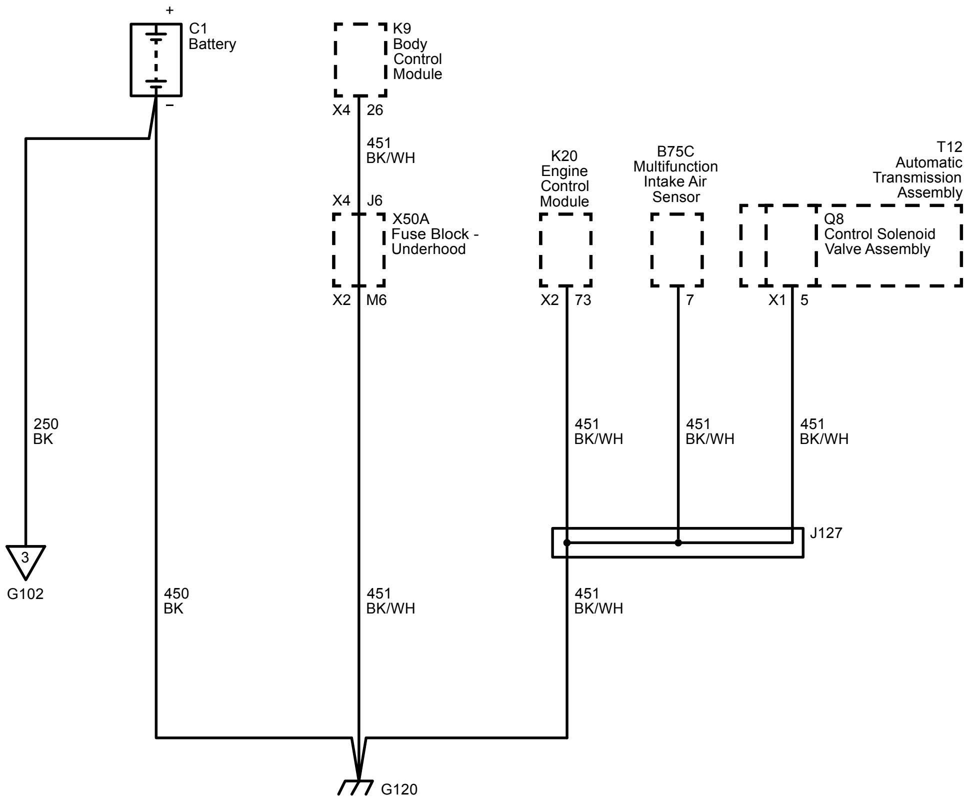
G110 (L83 or L86)


M75 Windshield Wiper Motor
5
1
550 BK
95 YE/BN
K9 Body Control Module
X4 26
451 BK/WH
X4 J6
X3 H2
K3
X50A Fuse Block - Underhood
KR12C Windshield Wiper Speed Control Relay
KR61 Trailer Backup Lamps Relay
KR27 Starter Relay
86
KR12B Windshield Wiper Relay
KR6 Rear Window Washer Pump Relay
KR73 Ignition Main Relay
86
KR11 Windshield Washer Pump Relay
X2 F2
M6
KR81 Auxiliary Battery Relay 1
X1 85
KR79 Auxiliary Battery Relay 2
X1 B
K69 Transfer Case Control Module
X3 D
550 BK
550 BK
550 BK
J121
Q2 A/C Compressor Clutch
M26 Front Axle Engagement Actuator
X9 14
X61A Junction Block - Instrument Panel
X2 18
K20 Engine Control Module
K71 Transmission Control Module
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
B35 Engine Oil Level Switch
B75C Multifunction Intake Air Sensor
1
4
X2 73
X3 73
65
X1 5
1
7
550 BK
550 BK
550 BK
451 BK/WH
451 BK/WH
451 BK/WH
451 BK/WH
451 BK/WH
X158 4
X111 4
X115 11
M5U
MYC
J126
550 BK
550 BK
550 BK
550 BK
550 BK
451 BK/WH
451 BK/WH
451 BK/WH
5W4/9C1
NP0/NQH
NP0/NQH
J124
J127
550 BK
451 BK/WH
G110
L O C
D E S C

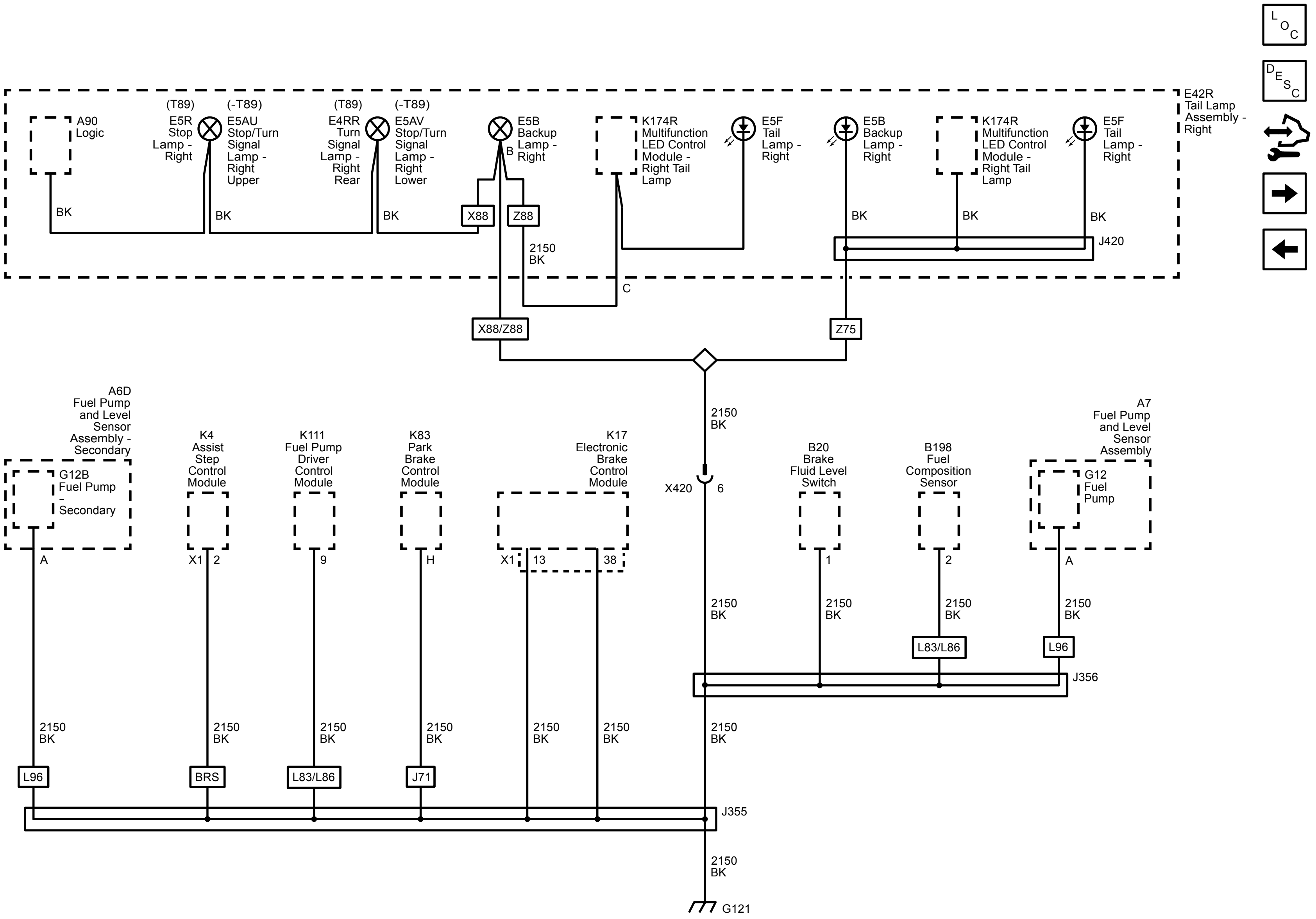
G110 (L96)

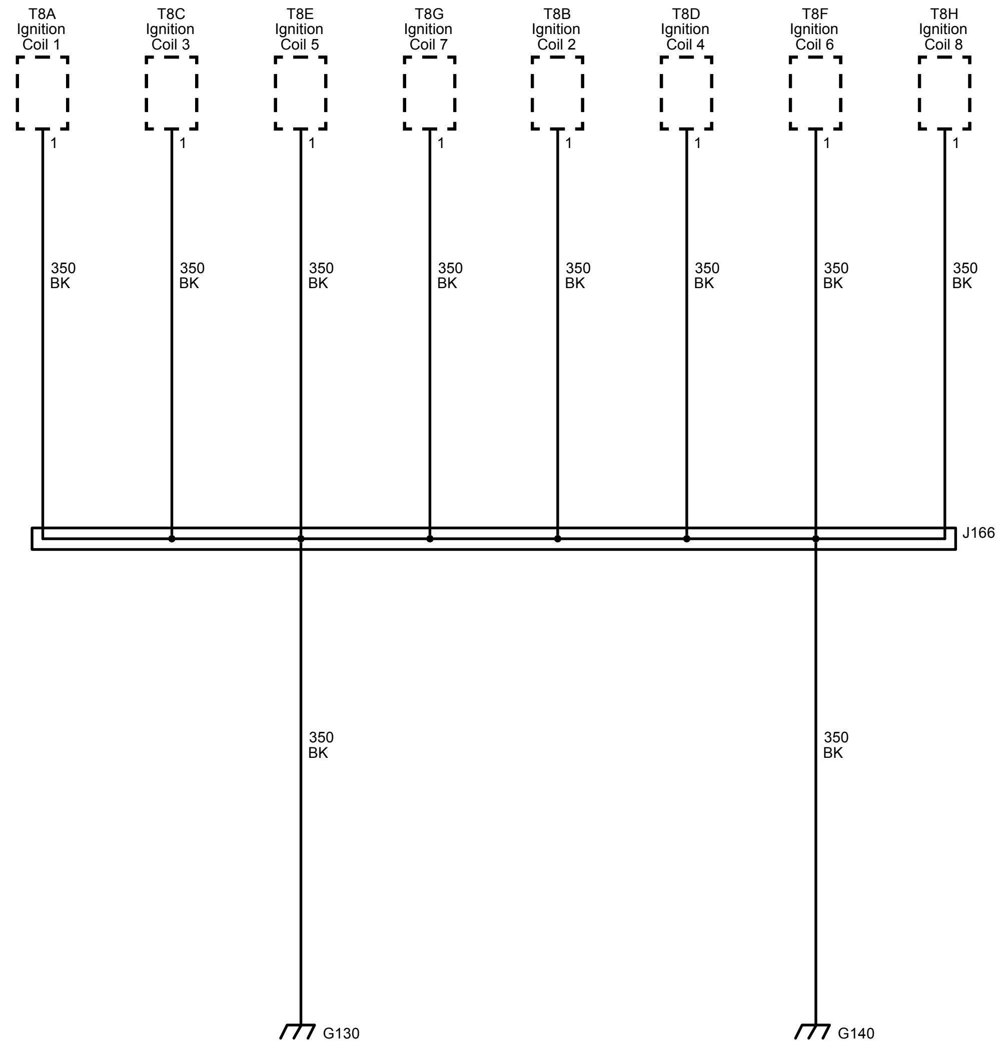

M75
Windshield
Wiper Motor
5
1
550
BK
95
YE/BN
X3
H2
K3
X50A
Fuse Block -
Underhood
KR12C
Windshield Wiper
Speed Control Relay
KR12B
Windshield
Wiper
Relay
KR6
Rear
Window
Washer
Pump
Relay
KR61
Trailer
Backup
Lamps
Relay
KR73
Ignition
Main
Relay
86
KR27
Starter
Relay
86
KR11
Windshield
Washer
Pump Relay
KR23A
Fuel
Pump
Relay
86
KR23B
Fuel Pump
Relay -
Secondary
86
X2
F2
K69
Transfer
Case
Control
Module
X3
D
550
BK
Q2
A/C
Compressor
Clutch
M26
Front Axle
Engagement
Actuator
X9
14
X61A
Junction
Block -
Instrument
Panel
X2
18
1
4
550
BK
550
BK
X111
4
X115
11
550
BK
550
BK
550
BK
550
BK
NQH
NQH
J123
550
BK
T8A
Ignition
Coil 1
T8C
Ignition
Coil 3
T8E
Ignition
Coil 5
T8G
Ignition
Coil 7
T8B
Ignition
Coil 2
T8D
Ignition
Coil 4
T8F
Ignition
Coil 6
T8H
Ignition
Coil 8
1
1
1
1
1
1
1
1
350
BK
350
BK
350
BK
350
BK
350
BK
350
BK
350
BK
350
BK
J166
J167
350
BK
350
BK
X170
A
X171
A
350
BK
350
BK
G110

G120 (L96)

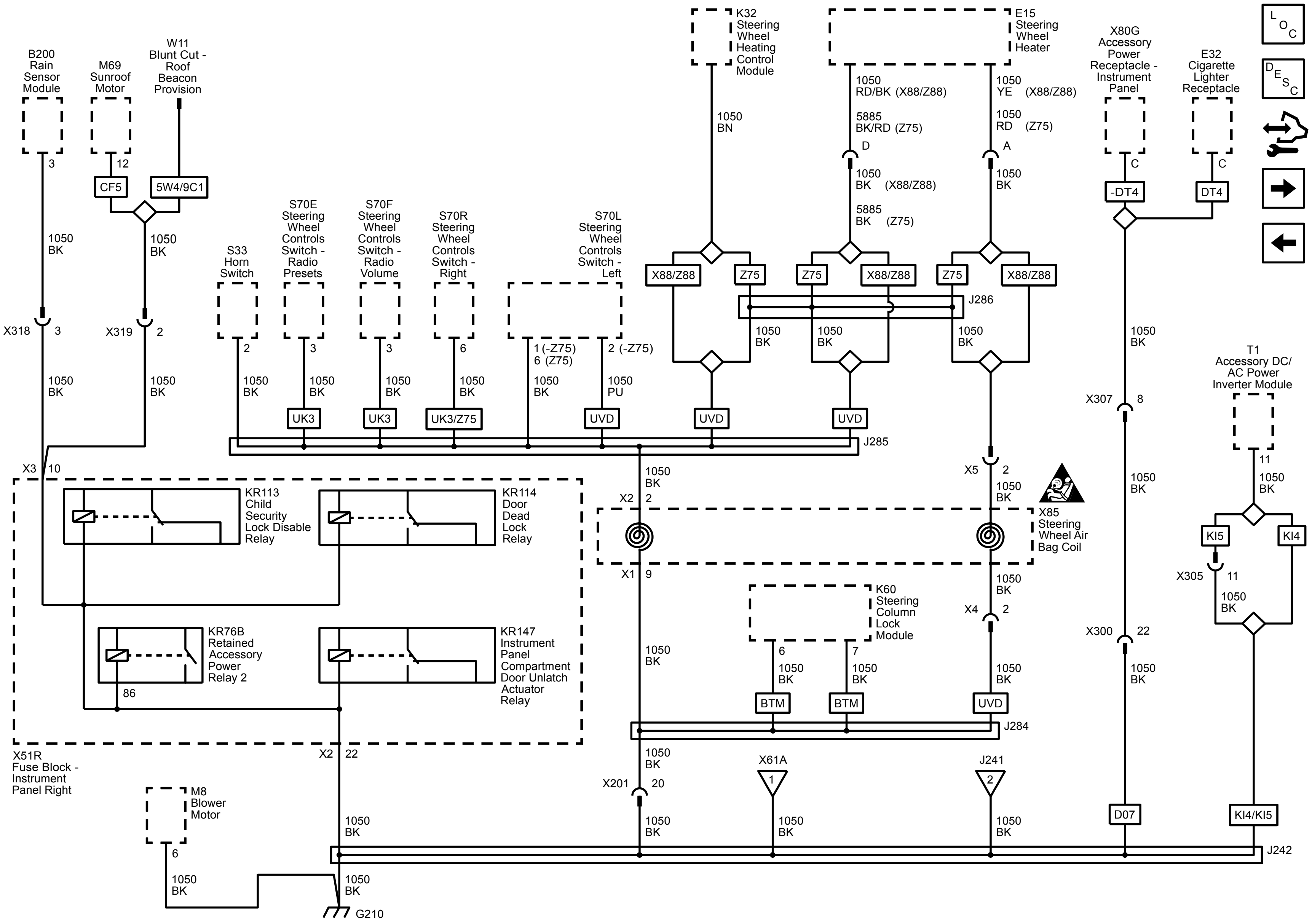


+
C1
Battery
−
K9
Body
Control
Module
X4 26
451
BK/WH
X4 J6
X50A
Fuse Block -
Underhood
X2 M6
K20
Engine
Control
Module
X2 73
B75C
Multifunction
Intake Air
Sensor
7
T12
Automatic
Transmission
Assembly
Q8
Control Solenoid
Valve Assembly
X1 5
250
BK
451
BK/WH
451
BK/WH
451
BK/WH
J127
3
G102
450
BK
451
BK/WH
451
BK/WH
G120


E42R
Tail Lamp
Assembly -
Right
A90
Logic
(T89)
E5R
Stop
Lamp -
Right
(-T89)
E5AU
Stop/Turn
Signal
Lamp -
Right
Upper
(T89)
E4RR
Turn
Signal
Lamp -
Right
Rear
(-T89)
E5AV
Stop/Turn
Signal
Lamp -
Right
Lower
E5B
Backup
Lamp -
Right
B
K174R
Multifunction
LED Control
Module -
Right Tail
Lamp
E5F
Tail
Lamp -
Right
E5B
Backup
Lamp -
Right
K174R
Multifunction
LED Control
Module -
Right Tail
Lamp
E5F
Tail
Lamp -
Right
BK
BK
BK
X88
Z88
2150
BK
C
BK
BK
BK
J420
X88/Z88
Z75
2150
BK
X420
6
A6D
Fuel Pump
and Level
Sensor
Assembly -
Secondary
G12B
Fuel Pump
-
Secondary
K4
Assist
Step
Control
Module
K111
Fuel Pump
Driver
Control
Module
K83
Park
Brake
Control
Module
K17
Electronic
Brake
Control
Module
B20
Brake
Fluid Level
Switch
B198
Fuel
Composition
Sensor
A7
Fuel Pump
and Level
Sensor
Assembly
G12
Fuel
Pump
A
X1
2
9
H
X1
13
38
1
2
A
2150
BK
2150
BK
2150
BK
2150
BK
L83/L86
L96
J356
2150
BK
2150
BK
2150
BK
2150
BK
2150
BK
2150
BK
2150
BK
L96
BRS
L83/L86
J71
J355
2150
BK
G121
L
O
C
D
E
S
C

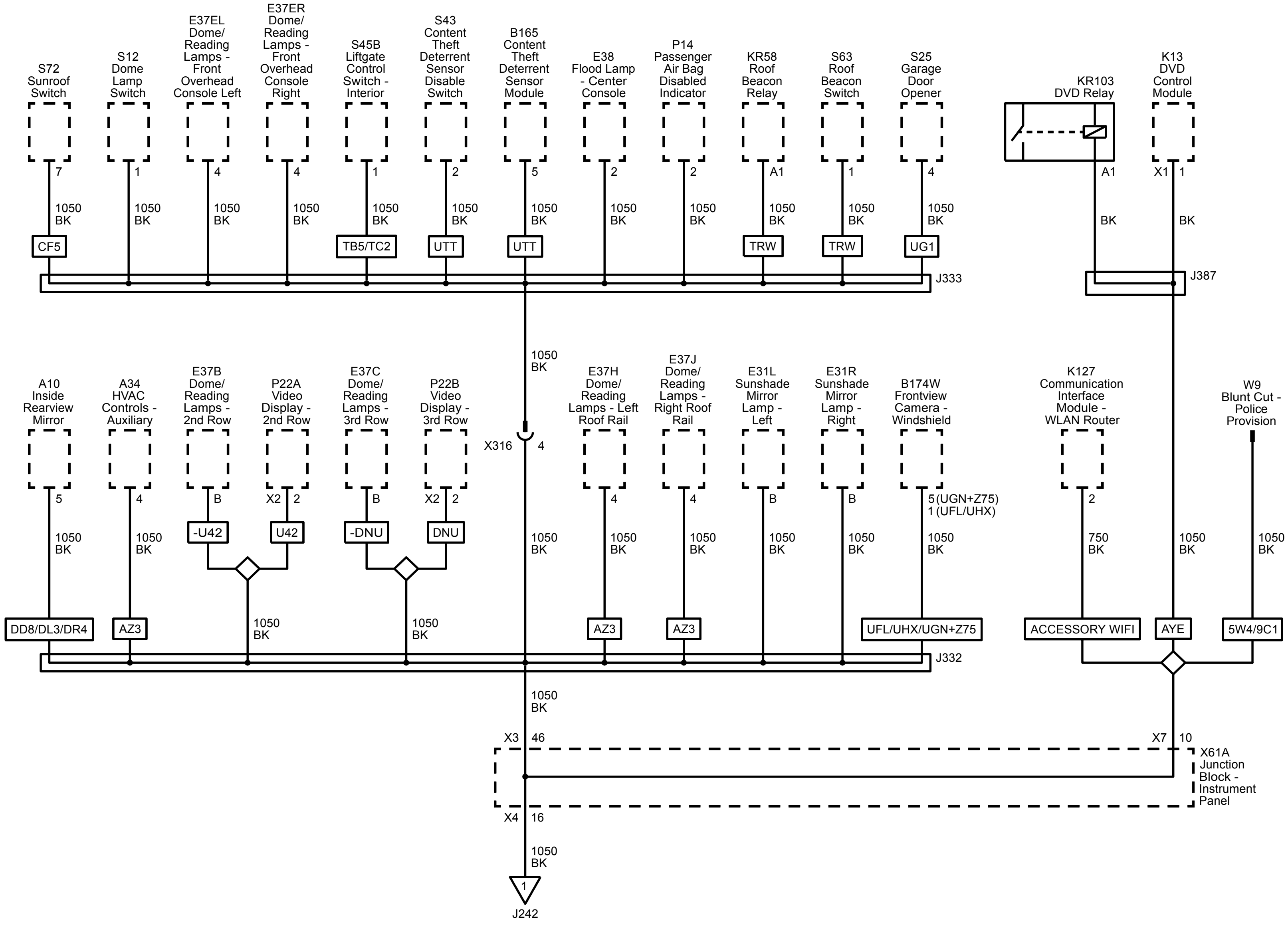

T8A
Ignition
Coil 1
T8C
Ignition
Coil 3
T8E
Ignition
Coil 5
T8G
Ignition
Coil 7
T8B
Ignition
Coil 2
T8D
Ignition
Coil 4
T8F
Ignition
Coil 6
T8H
Ignition
Coil 8
1
350
BK
J166
G130
G140

G210 (1 of 3)

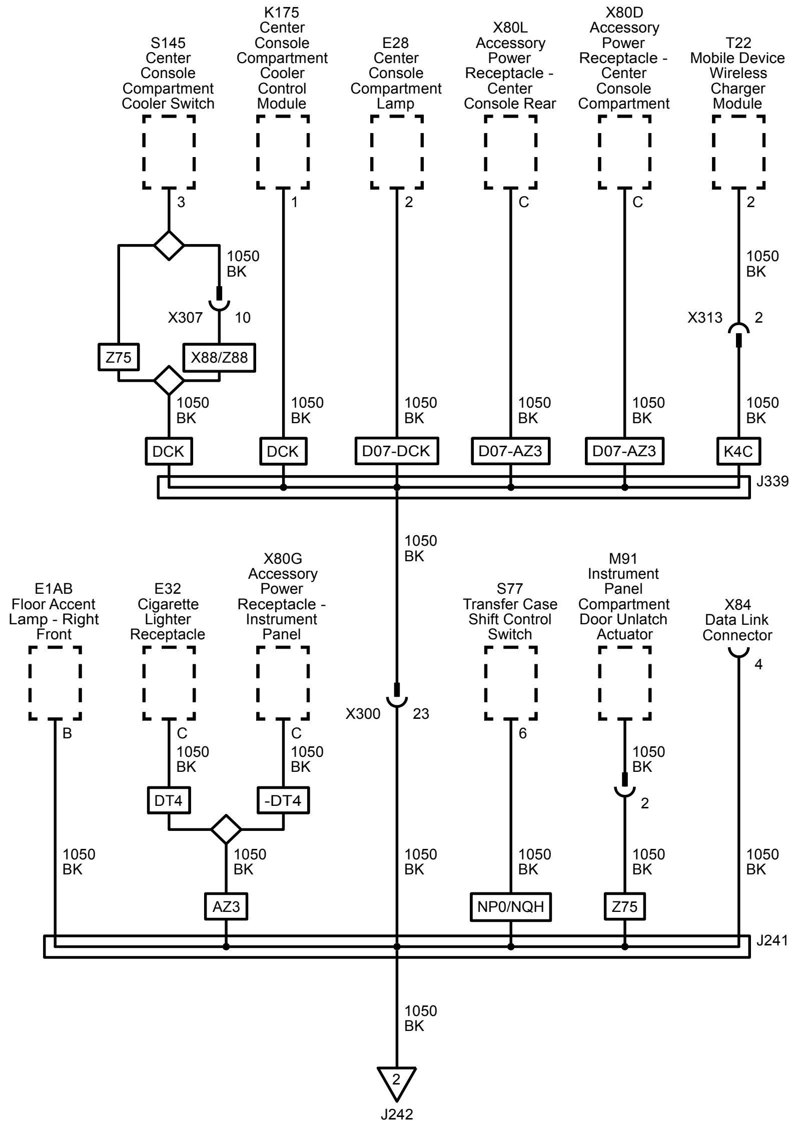


B200 Rain Sensor Module
M69 Sunroof Motor
W11 Blunt Cut - Roof Beacon Provision
3
12
CF5
5W4/9C1
1050 BK
1050 BK
X318 3
X319 2
1050 BK
1050 BK
S33 Horn Switch
S70E Steering Wheel Controls Switch - Radio Presets
S70F Steering Wheel Controls Switch - Radio Volume
S70R Steering Wheel Controls Switch - Right
S70L Steering Wheel Controls Switch - Left
2
3
3
6
1 (-Z75)
6 (Z75)
2 (-Z75)
1050 BK
1050 BK
1050 BK
1050 BK
1050 BK
1050 PU
UK3
UK3
UK3/Z75
UVD
UVD
UVD
J285
K32 Steering Wheel Heating Control Module
1050 BN
E15 Steering Wheel Heater
1050 RD/BK (X88/Z88)
5885 BK/RD (Z75)
D
1050 BK (X88/Z88)
5885 BK (Z75)
1050 YE (X88/Z88)
1050 RD (Z75)
A
1050 BK
X88/Z88
Z75
Z75
X88/Z88
Z75
X88/Z88
J286
1050 BK
1050 BK
1050 BK
X3 10
KR113 Child Security Lock Disable Relay
KR114 Door Dead Lock Relay
KR76B Retained Accessory Power Relay 2
86
KR147 Instrument Panel Compartment Door Unlatch Actuator Relay
X51R Fuse Block - Instrument Panel Right
X2 22
1050 BK
X2 2
X1 9
1050 BK
X5 2
1050 BK
X85 Steering Wheel Air Bag Coil
1050 BK
K60 Steering Column Lock Module
6
7
1050 BK
1050 BK
BTM
BTM
X4 2
1050 BK
UVD
J284
1050 BK
X201 20
1050 BK
X61A
1
1050 BK
J241
2
1050 BK
M8 Blower Motor
6
1050 BK
1050 BK
G210
X80G Accessory Power Receptacle - Instrument Panel
E32 Cigarette Lighter Receptacle
C
C
-DT4
DT4
1050 BK
X307 8
1050 BK
X300 22
1050 BK
D07
T1 Accessory DC/ AC Power Inverter Module
11
1050 BK
KI5
KI4
X305 11
1050 BK
KI4/KI5
J242

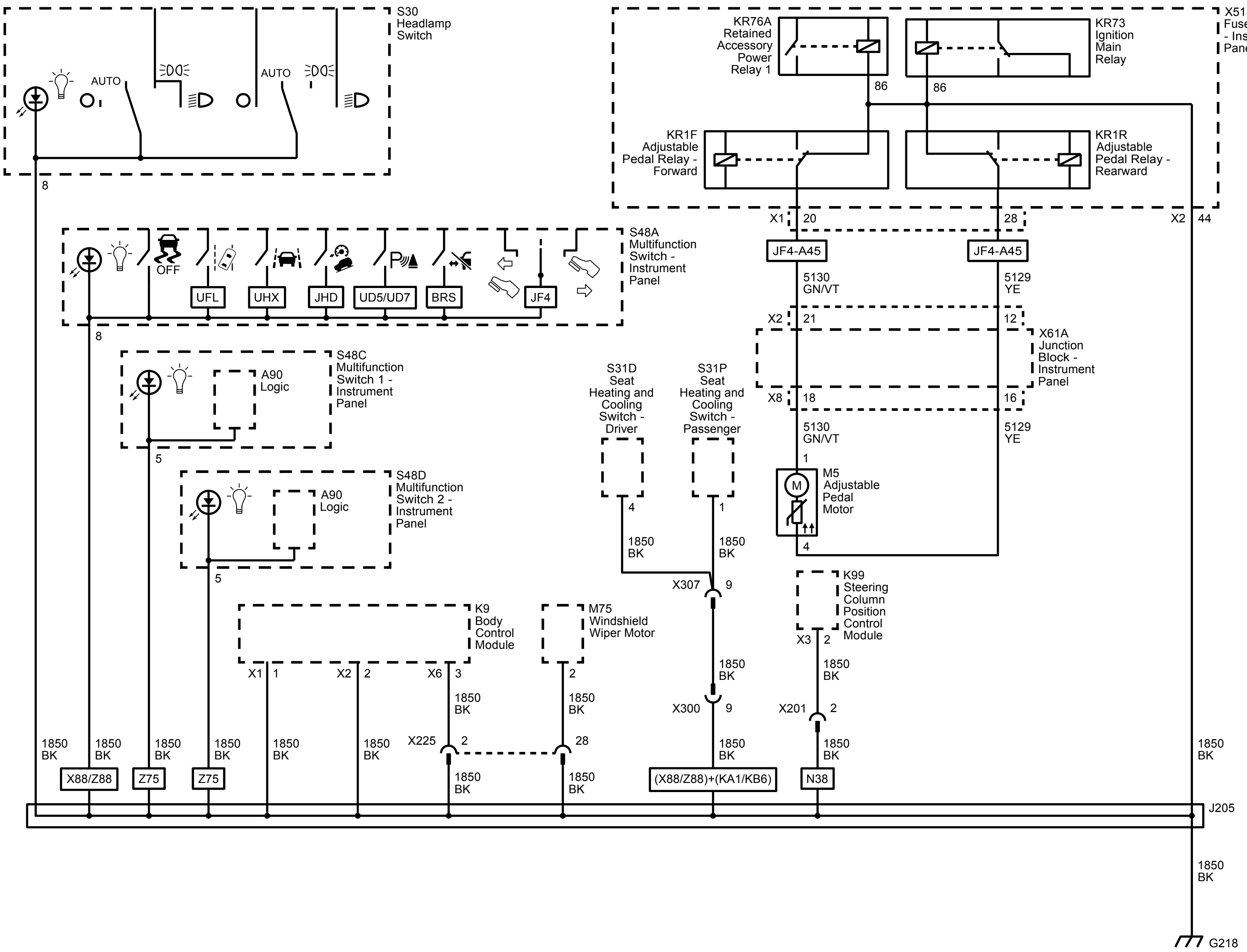
G210 (2 of 3)


S72 Sunroof Switch
S12 Dome Lamp Switch
E37EL Dome/ Reading Lamps - Front Overhead Console Left
E37ER Dome/ Reading Lamps - Front Overhead Console Right
S45B Liftgate Control Switch - Interior
S43 Content Theft Deterrent Sensor Disable Switch
B165 Content Theft Deterrent Sensor Module
E38 Flood Lamp - Center Console
P14 Passenger Air Bag Disabled Indicator
KR58 Roof Beacon Relay
S63 Roof Beacon Switch
S25 Garage Door Opener
KR103 DVD Relay
K13 DVD Control Module
7
1
4
4
1
2
5
2
2
A1
1
4
A1
X1
1
1050 BK
BK
BK
CF5
TB5/TC2
UTT
UTT
TRW
TRW
UG1
J333
J387
1050 BK
X316
4
A10 Inside Rearview Mirror
A34 HVAC Controls - Auxiliary
E37B Dome/ Reading Lamps - 2nd Row
P22A Video Display - 2nd Row
E37C Dome/ Reading Lamps - 3rd Row
P22B Video Display - 3rd Row
E37H Dome/ Reading Lamps - Left Roof Rail
E37J Dome/ Reading Lamps - Right Roof Rail
E31L Sunshade Mirror Lamp - Left
E31R Sunshade Mirror Lamp - Right
B174W Frontview Camera - Windshield
K127 Communication Interface Module - WLAN Router
W9 Blunt Cut - Police Provision
5
4
B
X2
2
B
X2
2
4
4
B
B
5 (UGN+Z75)
1 (UFL/UHX)
2
-U42
U42
-DNU
DNU
750 BK
DD8/DL3/DR4
AZ3
AZ3
AZ3
UFL/UHX/UGN+Z75
ACCESSORY WIFI
AYE
5W4/9C1
J332
X3
46
X7
10
X61A Junction Block - Instrument Panel
X4
16
1
J242

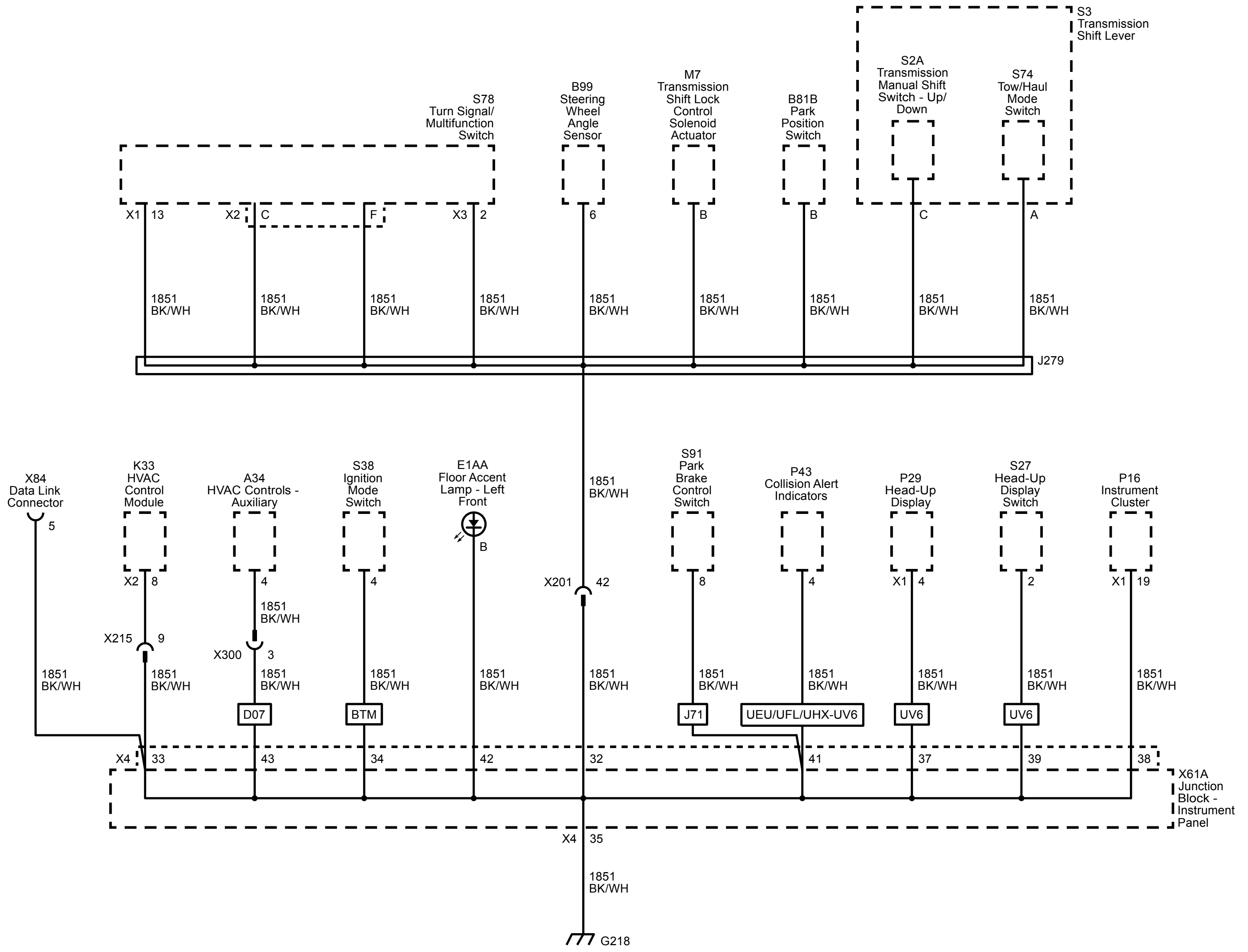
G210 (3 of 3)


S145 Center Console Compartment Cooler Switch
K175 Center Console Compartment Cooler Control Module
E28 Center Console Compartment Lamp
X80L Accessory Power Receptacle - Center Console Rear
X80D Accessory Power Receptacle - Center Console Compartment
T22 Mobile Device Wireless Charger Module
3
1
2
C
C
2
1050 BK
X307
10
X313
2
Z75
X88/Z88
DCK
DCK
D07-DCK
D07-AZ3
D07-AZ3
K4C
J339
E1AB Floor Accent Lamp - Right Front
E32 Cigarette Lighter Receptacle
X80G Accessory Power Receptacle - Instrument Panel
S77 Transfer Case Shift Control Switch
M91 Instrument Panel Compartment Door Unlatch Actuator
X84 Data Link Connector
B
C
C
6
4
X300
23
DT4
-DT4
AZ3
NP0/NQH
Z75
J241
2
J242

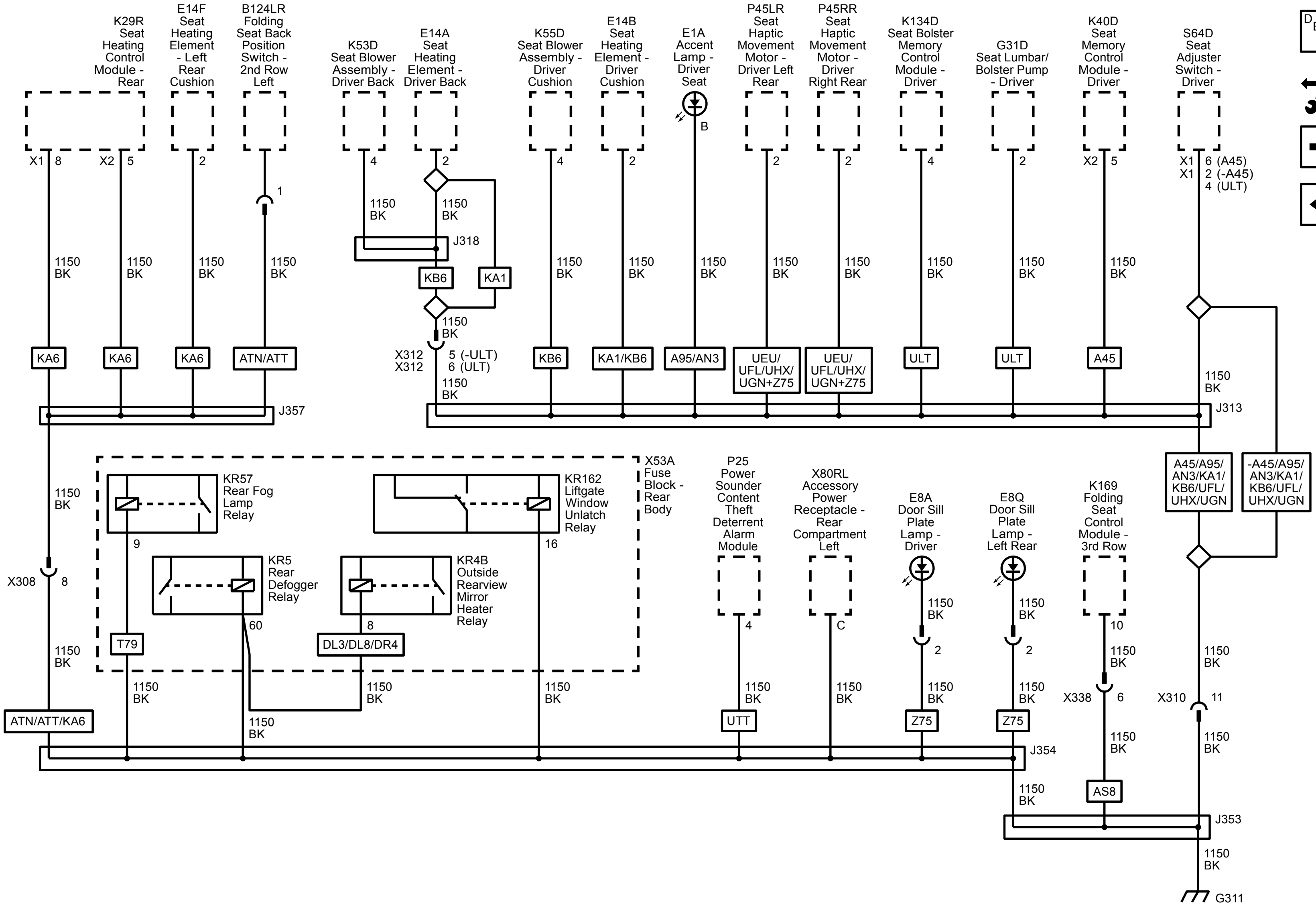
G218 (1 of 2)


S30
Headlamp
Switch
AUTO
AUTO
8
KR76A
Retained
Accessory
Power
Relay 1
86
KR73
Ignition
Main
Relay
86
X51L
Fuse Block
- Instrument
Panel Left
KR1F
Adjustable
Pedal Relay -
Forward
KR1R
Adjustable
Pedal Relay -
Rearward
X1
20
28
X2
44
JF4-A45
JF4-A45
5130
GN/VT
5129
YE
S48A
Multifunction
Switch -
Instrument
Panel
OFF
UFL
UHX
JHD
UD5/UD7
BRS
JF4
8
X2
21
12
X61A
Junction
Block -
Instrument
Panel
X8
18
16
5130
GN/VT
5129
YE
1
M
M5
Adjustable
Pedal
Motor
4
S48C
Multifunction
Switch 1 -
Instrument
Panel
A90
Logic
5
S31D
Seat
Heating and
Cooling
Switch -
Driver
S31P
Seat
Heating and
Cooling
Switch -
Passenger
4
1
1850
BK
1850
BK
S48D
Multifunction
Switch 2 -
Instrument
Panel
A90
Logic
5
X307
9
K99
Steering
Column
Position
Control
Module
X3
2
K9
Body
Control
Module
M75
Windshield
Wiper Motor
X1
1
X2
2
X6
3
2
1850
BK
1850
BK
1850
BK
1850
BK
X300
9
X201
2
X225
2
28
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
1850
BK
X88/Z88
Z75
Z75
(X88/Z88)+(KA1/KB6)
N38
J205
1850
BK
G218

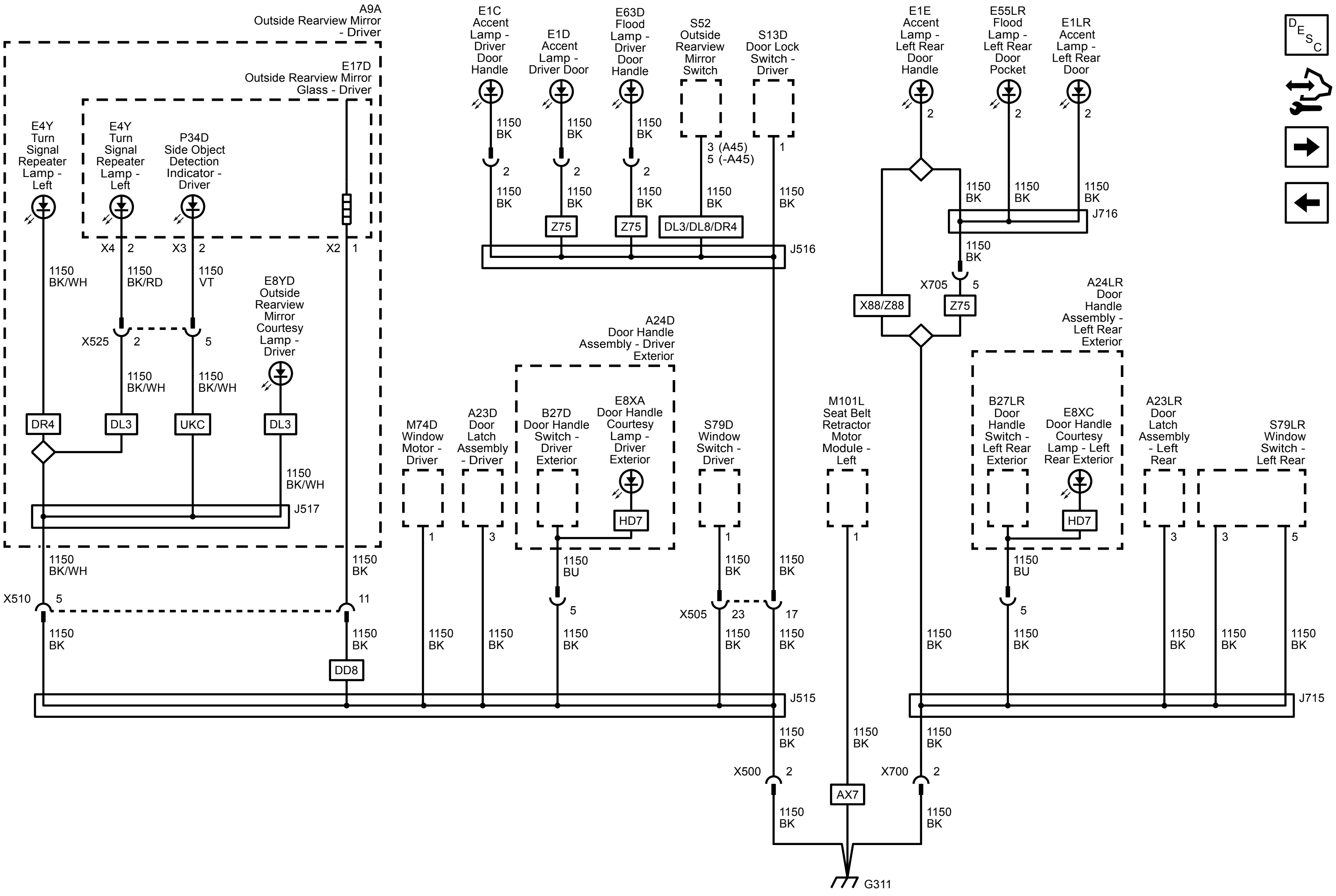
G218 (2 of 2)


S3
Transmission
Shift Lever
S78
Turn Signal/
Multifunction
Switch
B99
Steering
Wheel
Angle
Sensor
M7
Transmission
Shift Lock
Control
Solenoid
Actuator
B81B
Park
Position
Switch
S2A
Transmission
Manual Shift
Switch - Up/
Down
S74
Tow/Haul
Mode
Switch
X1 13
X2 C
F
X3 2
6
B
B
C
A
1851
BK/WH
J279
X84
Data Link
Connector
5
K33
HVAC
Control
Module
X2 8
X215 9
A34
HVAC Controls -
Auxiliary
4
X300 3
S38
Ignition
Mode
Switch
4
E1AA
Floor Accent
Lamp - Left
Front
B
X201 42
S91
Park
Brake
Control
Switch
8
P43
Collision Alert
Indicators
4
P29
Head-Up
Display
X1 4
S27
Head-Up
Display
Switch
2
P16
Instrument
Cluster
X1 19
D07
BTM
J71
UEU/UFL/UHX-UV6
UV6
UV6
X4 33
43
34
42
32
41
37
39
38
X61A
Junction
Block -
Instrument
Panel
X4 35
G218

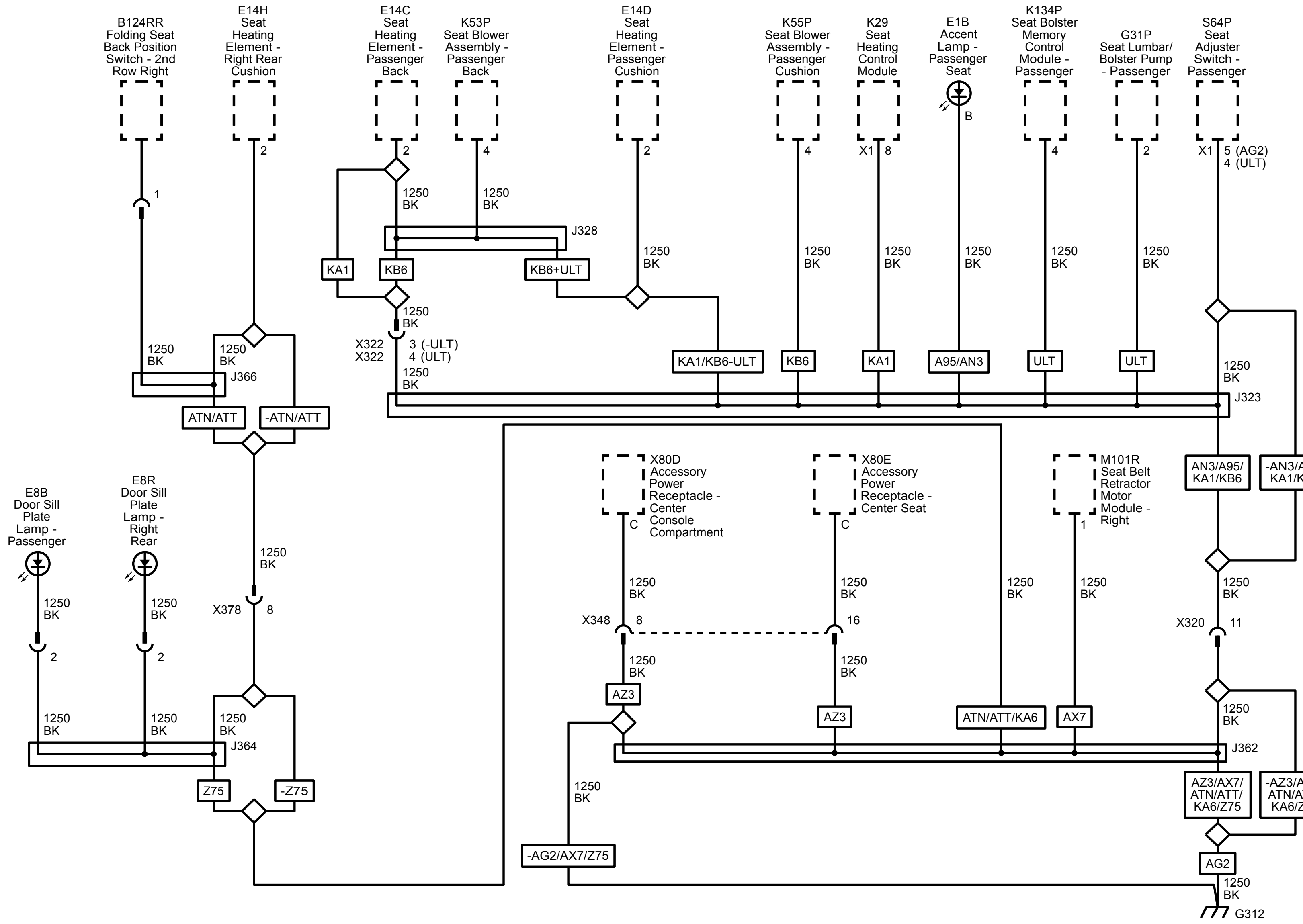
G311 (1 of 2)


K29R Seat Heating Control Module - Rear
E14F Seat Heating Element - Left Rear Cushion
B124LR Folding Seat Back Position Switch - 2nd Row Left
K53D Seat Blower Assembly - Driver Back
E14A Seat Heating Element - Driver Back
K55D Seat Blower Assembly - Driver Cushion
E14B Seat Heating Element - Driver Cushion
E1A Accent Lamp - Driver Seat
P45LR Seat Haptic Movement Motor - Driver Left Rear
P45RR Seat Haptic Movement Motor - Driver Right Rear
K134D Seat Bolster Memory Control Module - Driver
G31D Seat Lumbar/ Bolster Pump - Driver
K40D Seat Memory Control Module - Driver
S64D Seat Adjuster Switch - Driver
X1 8
X2 5
2
1
4
2
4
2
B
2
2
4
2
X2 5
X1 6 (A45)
X1 2 (-A45)
4 (ULT)
1150 BK
J318
KB6
KA1
X312 5 (-ULT)
X312 6 (ULT)
KA6
KA6
KA6
ATN/ATT
KB6
KA1/KB6
A95/AN3
UEU/ UFL/UHX/ UGN+Z75
UEU/ UFL/UHX/ UGN+Z75
ULT
ULT
A45
J357
J313
A45/A95/ AN3/KA1/ KB6/UFL/ UHX/UGN
-A45/A95/ AN3/KA1/ KB6/UFL/ UHX/UGN
X53A Fuse Block - Rear Body
KR57 Rear Fog Lamp Relay
KR162 Liftgate Window Unlatch Relay
KR5 Rear Defogger Relay
KR4B Outside Rearview Mirror Heater Relay
9
16
60
8
T79
DL3/DL8/DR4
X308 8
ATN/ATT/KA6
P25 Power Sounder Content Theft Deterrent Alarm Module
X80RL Accessory Power Receptacle - Rear Compartment Left
E8A Door Sill Plate Lamp - Driver
E8Q Door Sill Plate Lamp - Left Rear
K169 Folding Seat Control Module - 3rd Row
4
C
2
2
10
X338 6
X310 11
UTT
Z75
Z75
AS8
J354
J353
G311

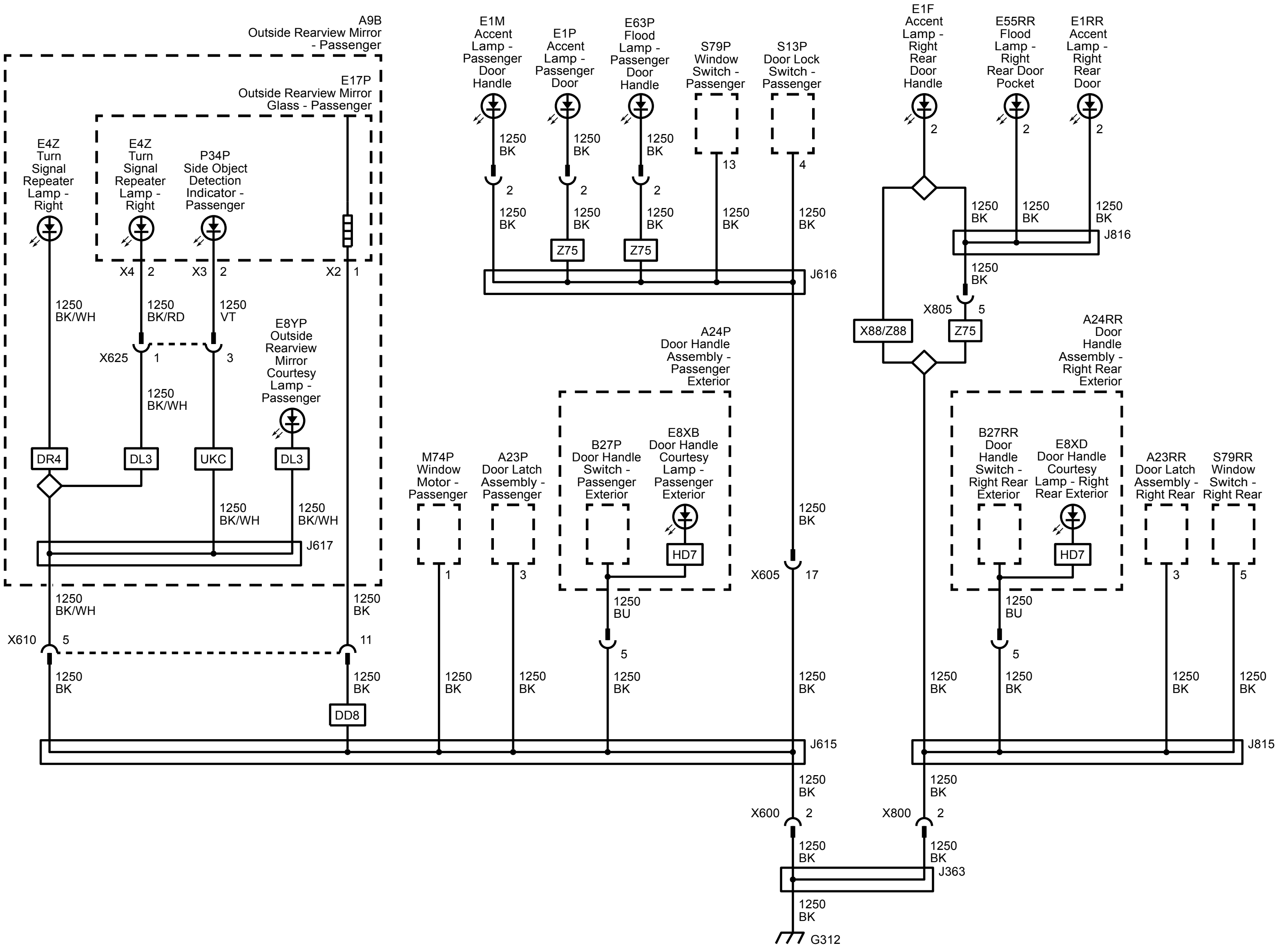
G311 (2 of 2)


A9A Outside Rearview Mirror - Driver
E17D Outside Rearview Mirror Glass - Driver
E4Y Turn Signal Repeater Lamp - Left
E4Y Turn Signal Repeater Lamp - Left
P34D Side Object Detection Indicator - Driver
E8YD Outside Rearview Mirror Courtesy Lamp - Driver
X4 2
X3 2
X2 1
1150 BK/WH
1150 BK/RD
1150 VT
X525 2
5
1150 BK/WH
1150 BK/WH
DR4
DL3
UKC
DL3
1150 BK/WH
J517
1150 BK/WH
1150 BK
X510 5
11
1150 BK
1150 BK
DD8
E1C Accent Lamp - Driver Door Handle
E1D Accent Lamp - Driver Door
E63D Flood Lamp - Driver Door Handle
S52 Outside Rearview Mirror Switch
S13D Door Lock Switch - Driver
1150 BK
2
Z75
3 (A45)
5 (-A45)
1
DL3/DL8/DR4
J516
A24D Door Handle Assembly - Driver Exterior
M74D Window Motor - Driver
A23D Door Latch Assembly - Driver
B27D Door Handle Switch - Driver Exterior
E8XA Door Handle Courtesy Lamp - Driver Exterior
HD7
S79D Window Switch - Driver
1150 BU
X505 23
17
M101L Seat Belt Retractor Motor Module - Left
J515
X500 2
AX7
X700 2
G311
E1E Accent Lamp - Left Rear Door Handle
E55LR Flood Lamp - Left Rear Door Pocket
E1LR Accent Lamp - Left Rear Door
J716
X705 5
X88/Z88
Z75
A24LR Door Handle Assembly - Left Rear Exterior
B27LR Door Handle Switch - Left Rear Exterior
E8XC Door Handle Courtesy Lamp - Left Rear Exterior
A23LR Door Latch Assembly - Left Rear
S79LR Window Switch - Left Rear
3
5
J715

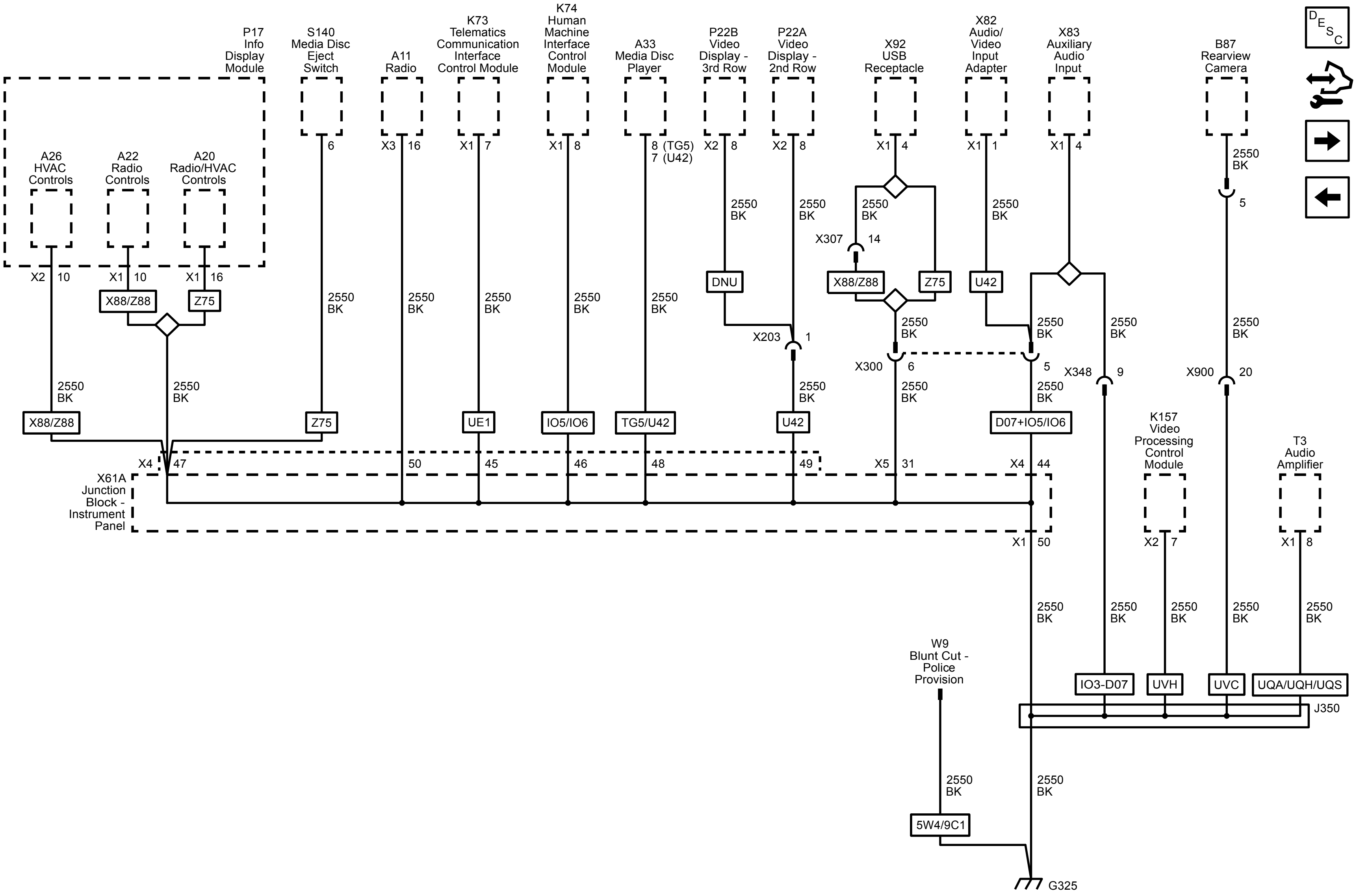
G312 (1 of 2)

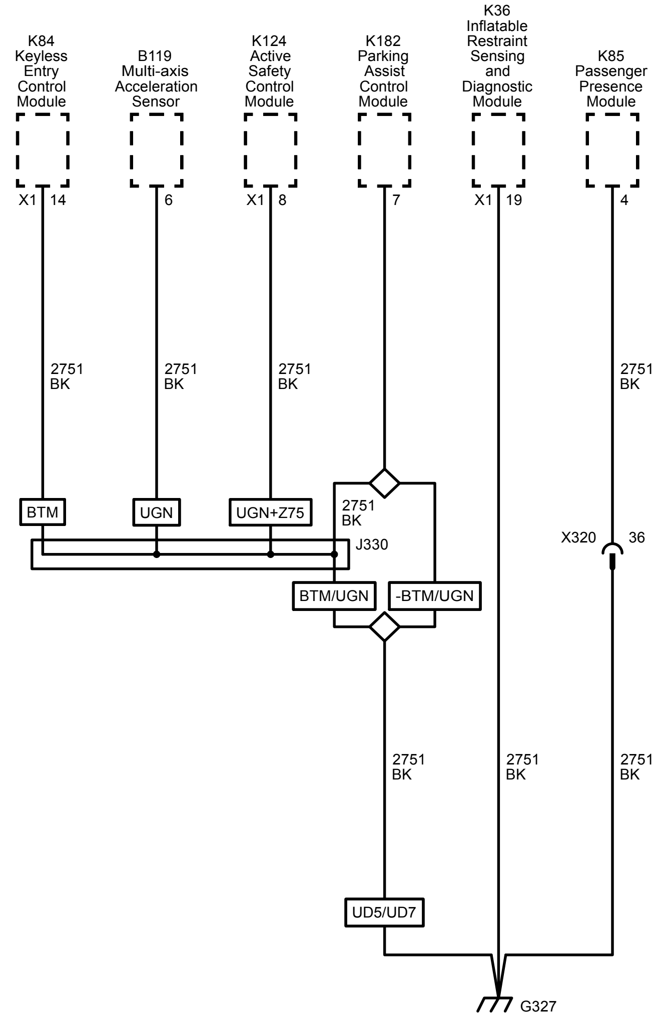

B124RR Folding Seat Back Position Switch - 2nd Row Right
E14H Seat Heating Element - Right Rear Cushion
E14C Seat Heating Element - Passenger Back
K53P Seat Blower Assembly - Passenger Back
E14D Seat Heating Element - Passenger Cushion
K55P Seat Blower Assembly - Passenger Cushion
K29 Seat Heating Control Module
E1B Accent Lamp - Passenger Seat
K134P Seat Bolster Memory Control Module - Passenger
G31P Seat Lumbar/ Bolster Pump - Passenger
S64P Seat Adjuster Switch - Passenger
1
2
2
4
2
4
X1 8
B
4
2
X1 5 (AG2) 4 (ULT)
1250 BK
J328
KA1
KB6
KB6+ULT
X322 3 (-ULT)
X322 4 (ULT)
J366
ATN/ATT
-ATN/ATT
KA1/KB6-ULT
KB6
KA1
A95/AN3
ULT
ULT
J323
AN3/A95/ KA1/KB6
-AN3/A95/ KA1/KB6
E8B Door Sill Plate Lamp - Passenger
E8R Door Sill Plate Lamp - Right Rear
X378 8
X80D Accessory Power Receptacle - Center Console Compartment
X80E Accessory Power Receptacle - Center Seat
M101R Seat Belt Retractor Motor Module - Right
C
C
1
X348 8
16
X320 11
AZ3
AZ3
ATN/ATT/KA6
AX7
J362
J364
Z75
-Z75
-AG2/AX7/Z75
AZ3/AX7/ ATN/ATT/ KA6/Z75
-AZ3/AX7/ ATN/ATT/ KA6/Z75
AG2
G312

G312 (2 of 2)

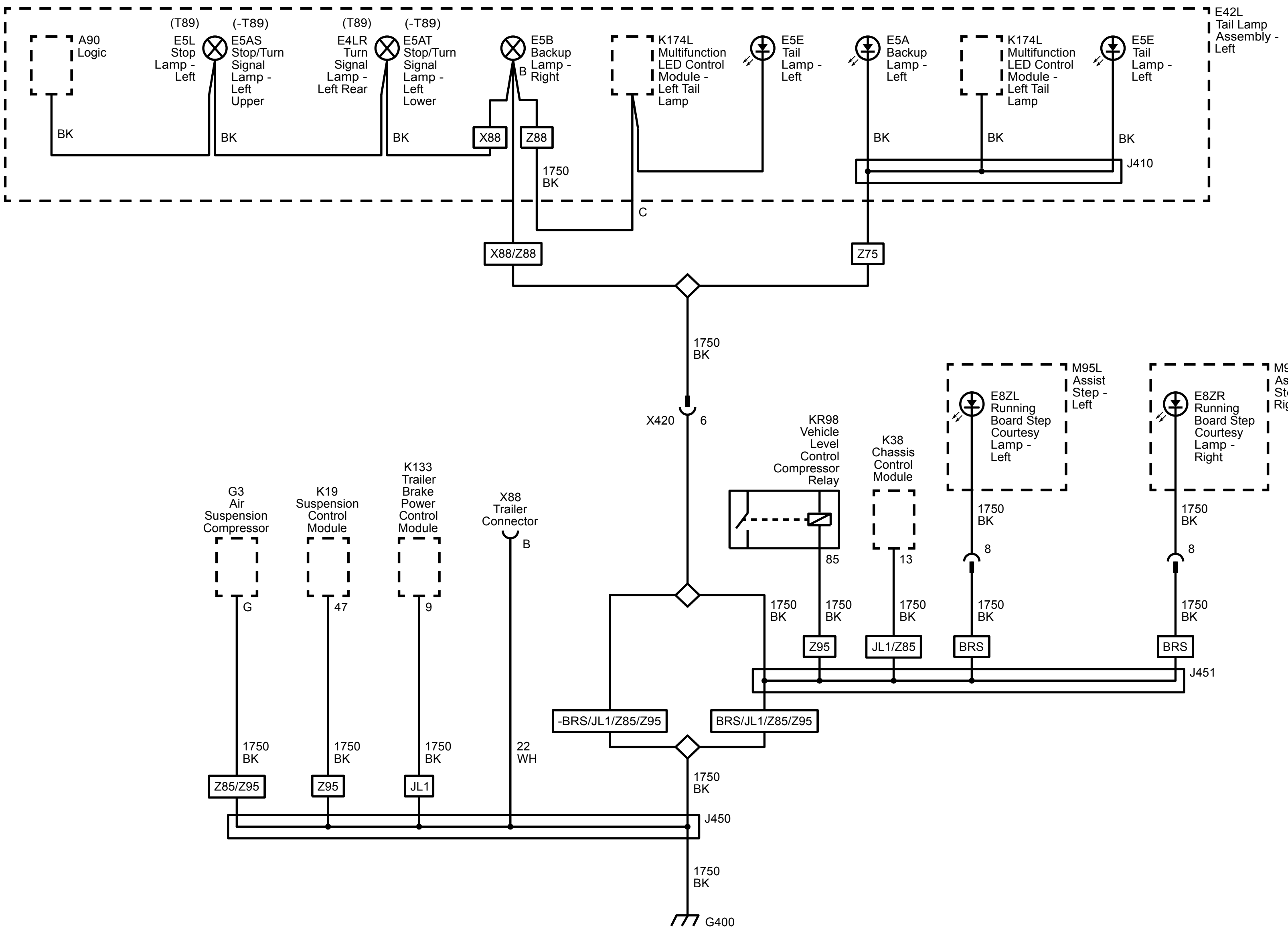

A9B Outside Rearview Mirror - Passenger
E17P Outside Rearview Mirror Glass - Passenger
E4Z Turn Signal Repeater Lamp - Right
E4Z Turn Signal Repeater Lamp - Right
P34P Side Object Detection Indicator - Passenger
E8YP Outside Rearview Mirror Courtesy Lamp - Passenger
E1M Accent Lamp - Passenger Door Handle
E1P Accent Lamp - Passenger Door
E63P Flood Lamp - Passenger Door Handle
S79P Window Switch - Passenger
S13P Door Lock Switch - Passenger
E1F Accent Lamp - Right Rear Door Handle
E55RR Flood Lamp - Right Rear Door Pocket
E1RR Accent Lamp - Right Rear Door
A24P Door Handle Assembly - Passenger Exterior
B27P Door Handle Switch - Passenger Exterior
E8XB Door Handle Courtesy Lamp - Passenger Exterior
M74P Window Motor - Passenger
A23P Door Latch Assembly - Passenger
A24RR Door Handle Assembly - Right Rear Exterior
B27RR Door Handle Switch - Right Rear Exterior
E8XD Door Handle Courtesy Lamp - Right Rear Exterior
A23RR Door Latch Assembly - Right Rear
S79RR Window Switch - Right Rear
X4 2
X3 2
X2 1
1250 BK/WH
1250 BK/RD
1250 VT
X625 1
X625 3
1250 BK/WH
DR4
DL3
UKC
DL3
1250 BK/WH
1250 BK/WH
J617
1250 BK/WH
1250 BK
X610 5
11
1250 BK
1250 BK
DD8
1250 BK
2
2
2
13
4
Z75
Z75
J616
1250 BK
X605 17
HD7
1250 BU
5
1
3
J615
X600 2
1250 BK
J363
G312
J816
X805 5
X88/Z88
Z75
HD7
1250 BU
5
3
5
J815
X800 2
1250 BK

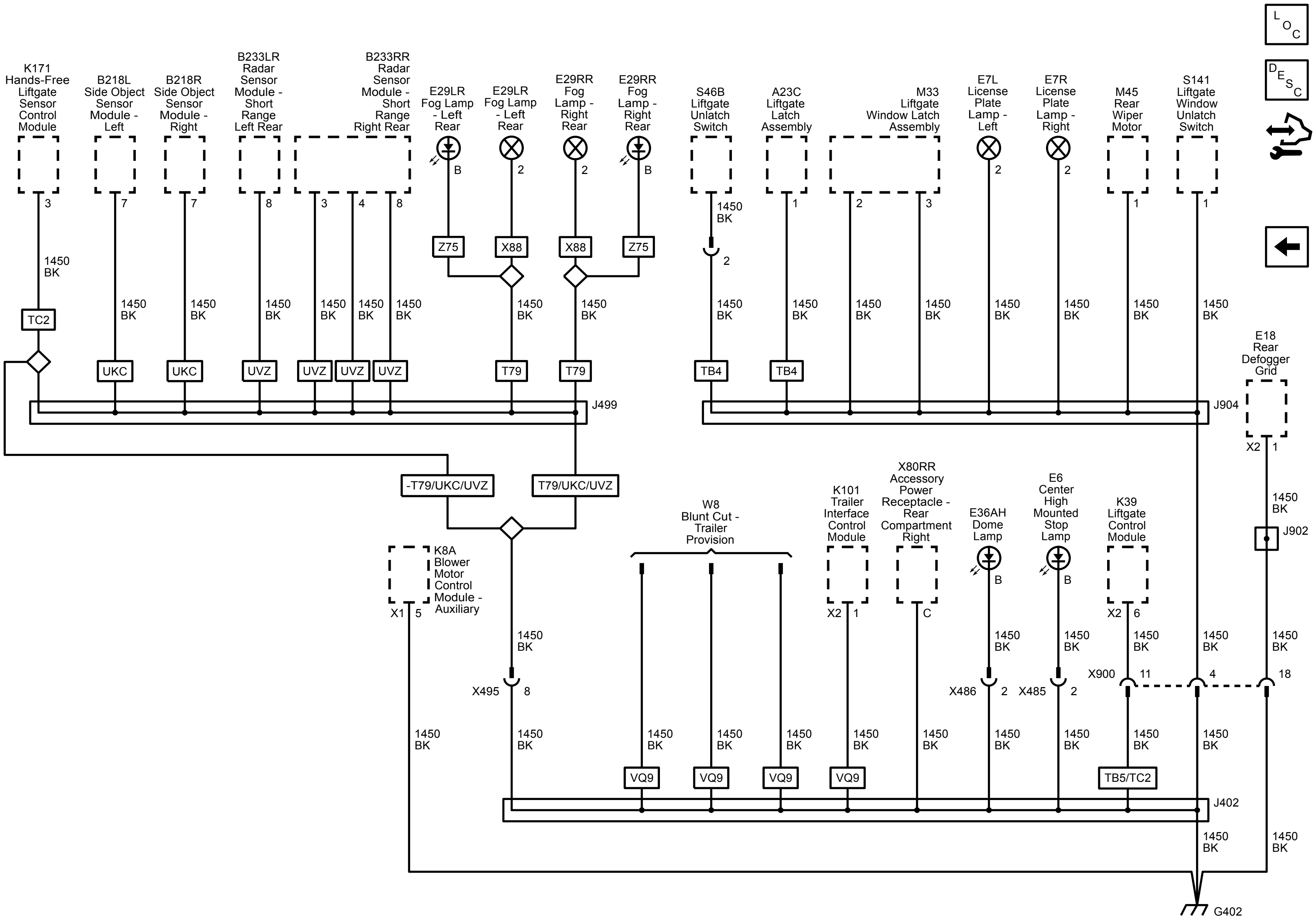
G325


P17 Info Display Module
S140 Media Disc Eject Switch
A11 Radio
K73 Telematics Communication Interface Control Module
K74 Human Machine Interface Control Module
A33 Media Disc Player
P22B Video Display - 3rd Row
P22A Video Display - 2nd Row
X92 USB Receptacle
X82 Audio/Video Input Adapter
X83 Auxiliary Audio Input
B87 Rearview Camera
A26 HVAC Controls
A22 Radio Controls
A20 Radio/HVAC Controls
X2 10
X1 10
X1 16
X88/Z88
Z75
6
X3 16
X1 7
X1 8
8 (TG5)
7 (U42)
X2 8
X2 8
X1 4
X1 1
X1 4
2550 BK
5
DNU
X307 14
X88/Z88
Z75
U42
X203 1
X300 6
5
X348 9
X900 20
X88/Z88
Z75
UE1
IO5/IO6
TG5/U42
U42
D07+IO5/IO6
X4 47
50
45
46
48
49
X5 31
X4 44
X61A Junction Block - Instrument Panel
X1 50
K157 Video Processing Control Module
T3 Audio Amplifier
X2 7
X1 8
W9 Blunt Cut - Police Provision
IO3-D07
UVH
UVC
UQA/UQH/UQS
J350
5W4/9C1
G325

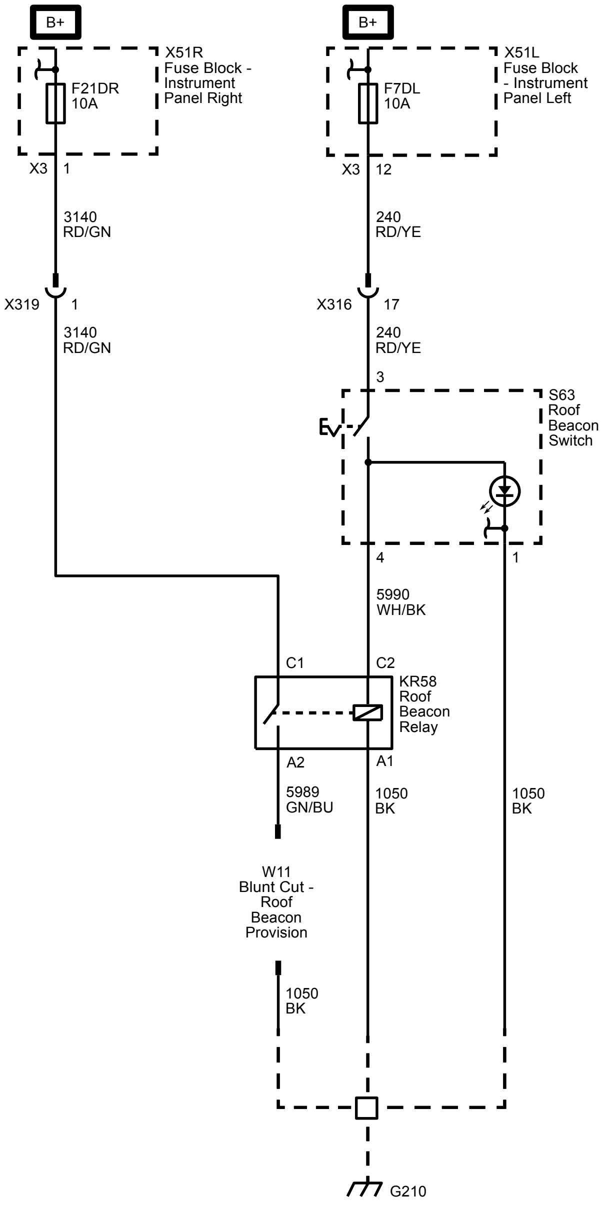

K84
Keyless
Entry
Control
Module
B119
Multi-axis
Acceleration
Sensor
K124
Active
Safety
Control
Module
K182
Parking
Assist
Control
Module
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
K85
Passenger
Presence
Module
X1 14
6
X1 8
7
X1 19
4
2751
BK
2751
BK
2751
BK
2751
BK
BTM
UGN
UGN+Z75
2751
BK
J330
X320 36
BTM/UGN
-BTM/UGN
2751
BK
2751
BK
2751
BK
UD5/UD7
G327

G400

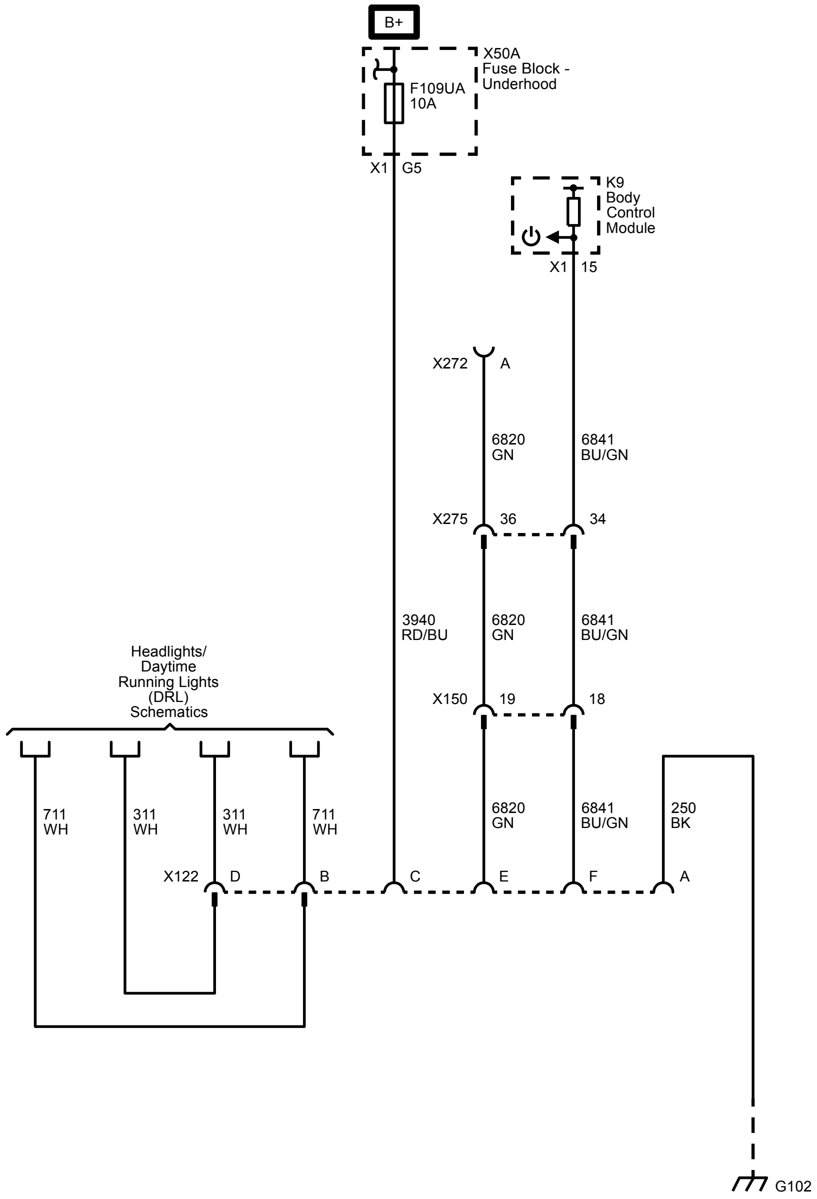

E42L Tail Lamp Assembly - Left
A90 Logic
(T89)
E5L Stop Lamp - Left
(-T89)
E5AS Stop/Turn Signal Lamp - Left Upper
(T89)
E4LR Turn Signal Lamp - Left Rear
(-T89)
E5AT Stop/Turn Signal Lamp - Left Lower
E5B Backup Lamp - Right
B
K174L Multifunction LED Control Module - Left Tail Lamp
E5E Tail Lamp - Left
E5A Backup Lamp - Left
K174L Multifunction LED Control Module - Left Tail Lamp
E5E Tail Lamp - Left
BK
BK
BK
X88
Z88
1750 BK
C
BK
BK
BK
J410
X88/Z88
Z75
1750 BK
X420
6
M95L Assist Step - Left
E8ZL Running Board Step Courtesy Lamp - Left
M95R Assist Step - Right
E8ZR Running Board Step Courtesy Lamp - Right
KR98 Vehicle Level Control Compressor Relay
K38 Chassis Control Module
G3 Air Suspension Compressor
K19 Suspension Control Module
K133 Trailer Brake Power Control Module
X88 Trailer Connector
B
85
13
1750 BK
8
1750 BK
8
G
47
9
1750 BK
1750 BK
1750 BK
1750 BK
1750 BK
1750 BK
Z95
JL1/Z85
BRS
BRS
J451
-BRS/JL1/Z85/Z95
BRS/JL1/Z85/Z95
1750 BK
1750 BK
1750 BK
22 WH
1750 BK
Z85/Z95
Z95
JL1
J450
1750 BK
G400

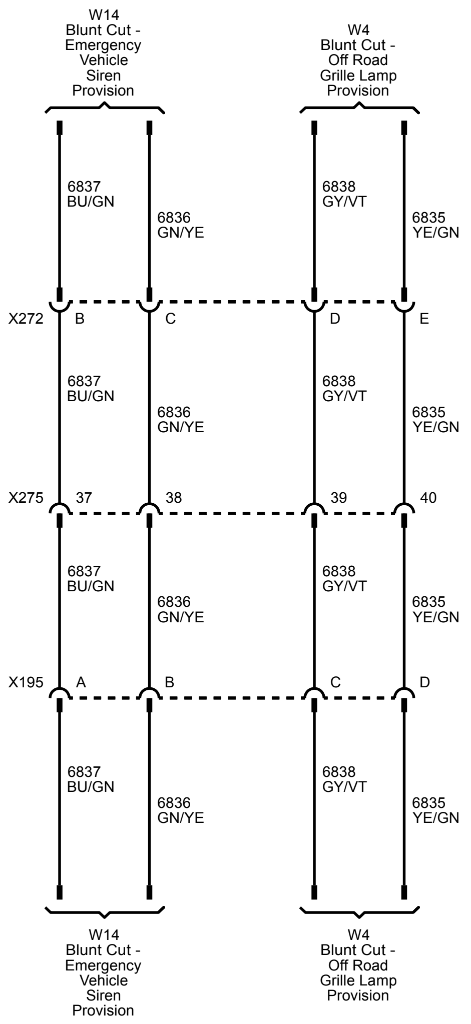

K171 Hands-Free Liftgate Sensor Control Module
B218L Side Object Sensor Module - Left
B218R Side Object Sensor Module - Right
B233LR Radar Sensor Module - Short Range Left Rear
B233RR Radar Sensor Module - Short Range Right Rear
E29LR Fog Lamp - Left Rear
E29LR Fog Lamp - Left Rear
E29RR Fog Lamp - Right Rear
E29RR Fog Lamp - Right Rear
S46B Liftgate Unlatch Switch
A23C Liftgate Latch Assembly
M33 Liftgate Window Latch Assembly
E7L License Plate Lamp - Left
E7R License Plate Lamp - Right
M45 Rear Wiper Motor
S141 Liftgate Window Unlatch Switch
3
7
7
8
3
4
8
B
2
2
B
1
2
3
2
2
1
1
1450 BK
TC2
UKC
UKC
UVZ
UVZ
UVZ
UVZ
Z75
X88
X88
Z75
T79
T79
TB4
TB4
2
J499
J904
E18 Rear Defogger Grid
X2 1
J902
-T79/UKC/UVZ
T79/UKC/UVZ
K8A Blower Motor Control Module - Auxiliary
X1 5
W8 Blunt Cut - Trailer Provision
K101 Trailer Interface Control Module
X2 1
X80RR Accessory Power Receptacle - Rear Compartment Right
C
E36AH Dome Lamp
B
E6 Center High Mounted Stop Lamp
B
K39 Liftgate Control Module
X2 6
X495 8
X486 2
X485 2
X900 11
4
18
VQ9
VQ9
VQ9
VQ9
TB5/TC2
J402
G402

Roof Beacon Provisions (TRW)

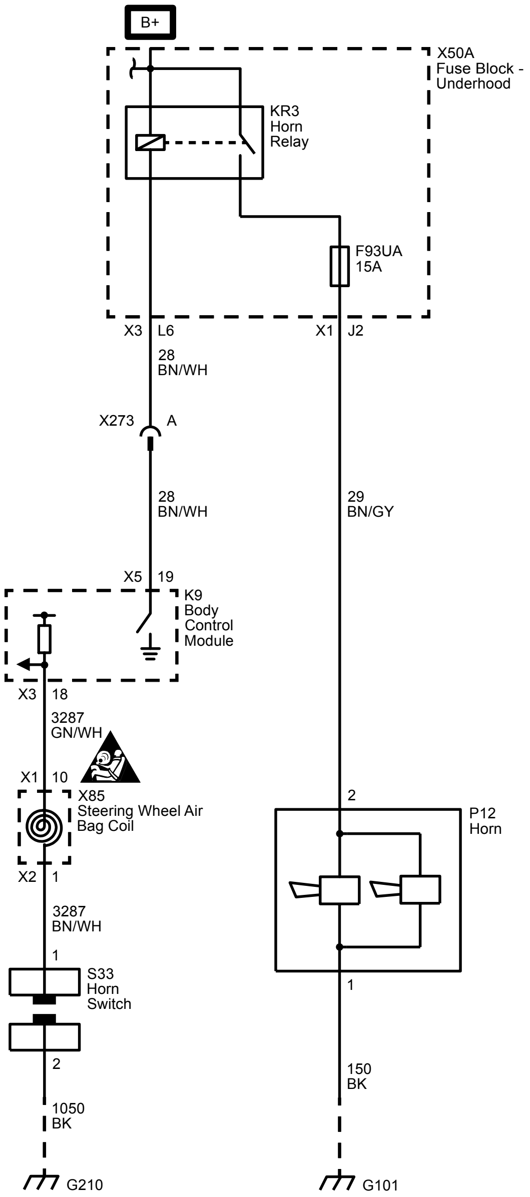

B+
X51R
Fuse Block - Instrument Panel Right
F21DR
10A
X3
1
3140
RD/GN
X319
1
3140
RD/GN
B+
X51L
Fuse Block - Instrument Panel Left
F7DL
10A
X3
12
240
RD/YE
X316
17
240
RD/YE
3
S63
Roof Beacon Switch
4
1
5990
WH/BK
C1
C2
KR58
Roof Beacon Relay
A2
A1
5989
GN/BU
1050
BK
1050
BK
W11
Blunt Cut - Roof Beacon Provision
1050
BK
G210

Headlight Flasher Provisions (6J7)

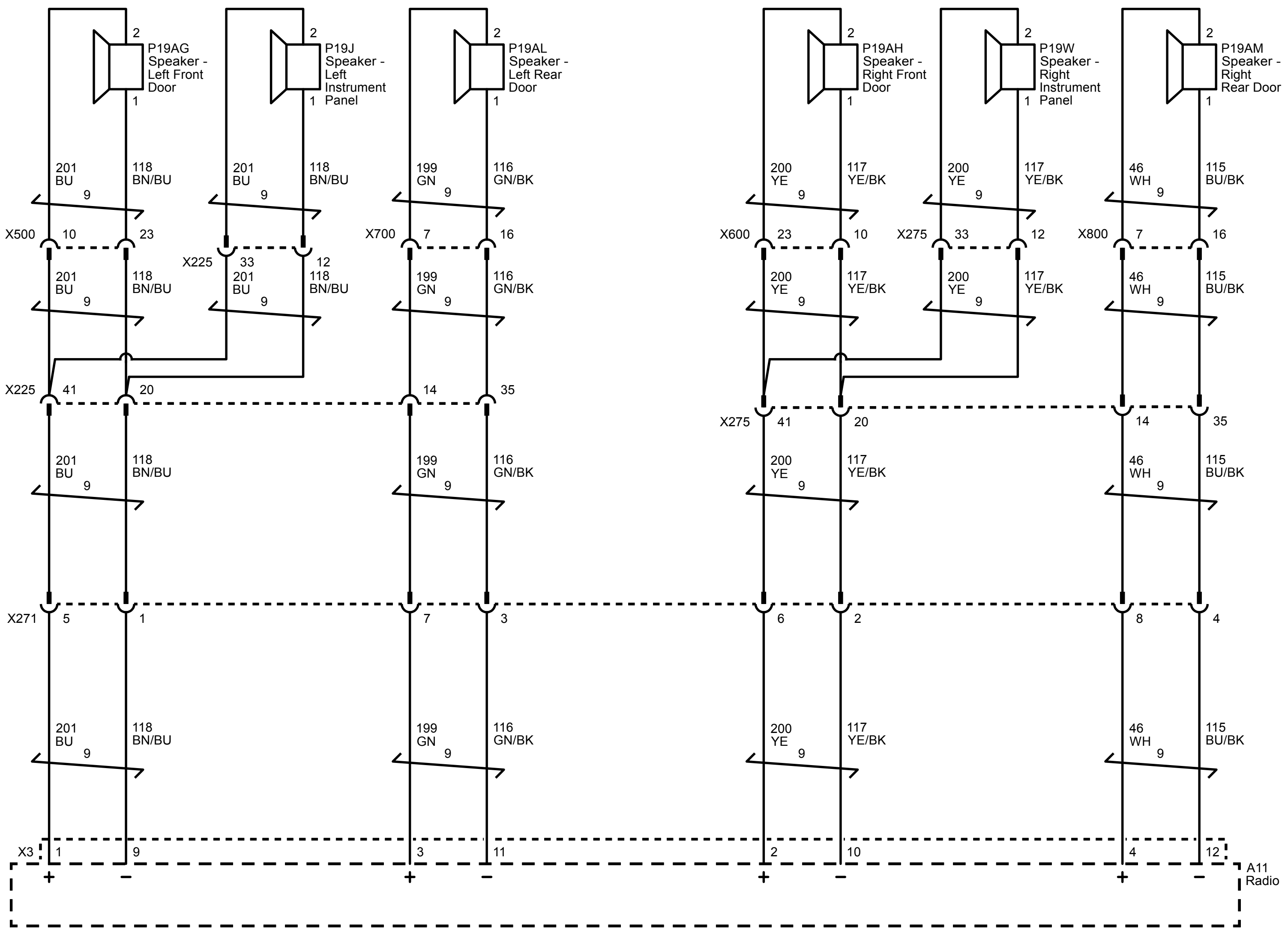

B+
X50A
Fuse Block -
Underhood
F109UA
10A
X1
G5
K9
Body
Control
Module
X1
15
X272
A
6820
GN
6841
BU/GN
X275
36
34
3940
RD/BU
6820
GN
6841
BU/GN
X150
19
18
Headlights/
Daytime
Running Lights
(DRL)
Schematics
711
WH
311
WH
311
WH
711
WH
6820
GN
6841
BU/GN
250
BK
X122
D
B
C
E
F
A
G102

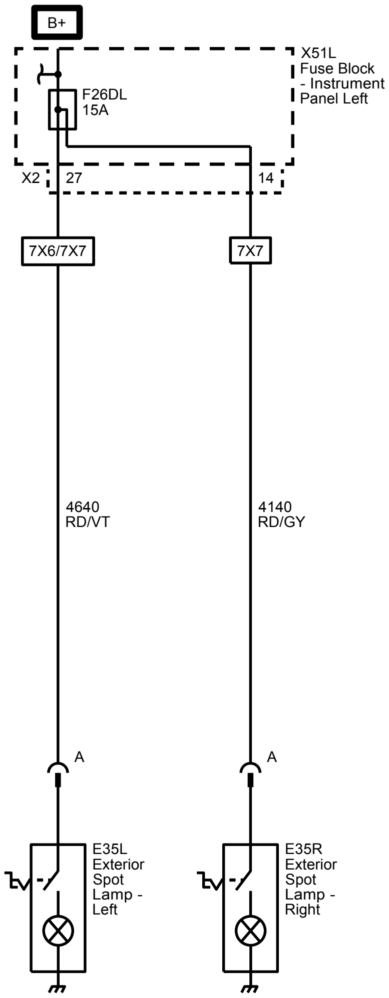

W14
Blunt Cut - Emergency Vehicle Siren Provision
W4
Blunt Cut - Off Road Grille Lamp Provision
6837
BU/GN
6836
GN/YE
6838
GY/VT
6835
YE/GN
X272
B
C
D
E
X275
37
38
39
40
X195
A
B
C
D
W14
Blunt Cut - Emergency Vehicle Siren Provision
W4
Blunt Cut - Off Road Grille Lamp Provision

Horn Provision (6J4)

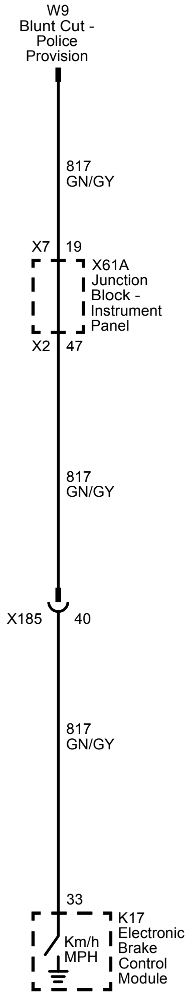

B+
X50A
Fuse Block -
Underhood
KR3
Horn
Relay
F93UA
15A
X3
L6
X1
J2
28
BN/WH
X273
A
28
BN/WH
29
BN/GY
X5
19
K9
Body
Control
Module
X3
18
3287
GN/WH
X1
10
X85
Steering Wheel Air
Bag Coil
X2
1
3287
BN/WH
1
S33
Horn
Switch
2
1050
BK
G210
2
P12
Horn
1
150
BK
G101

Speaker Inline Provision (WX7)

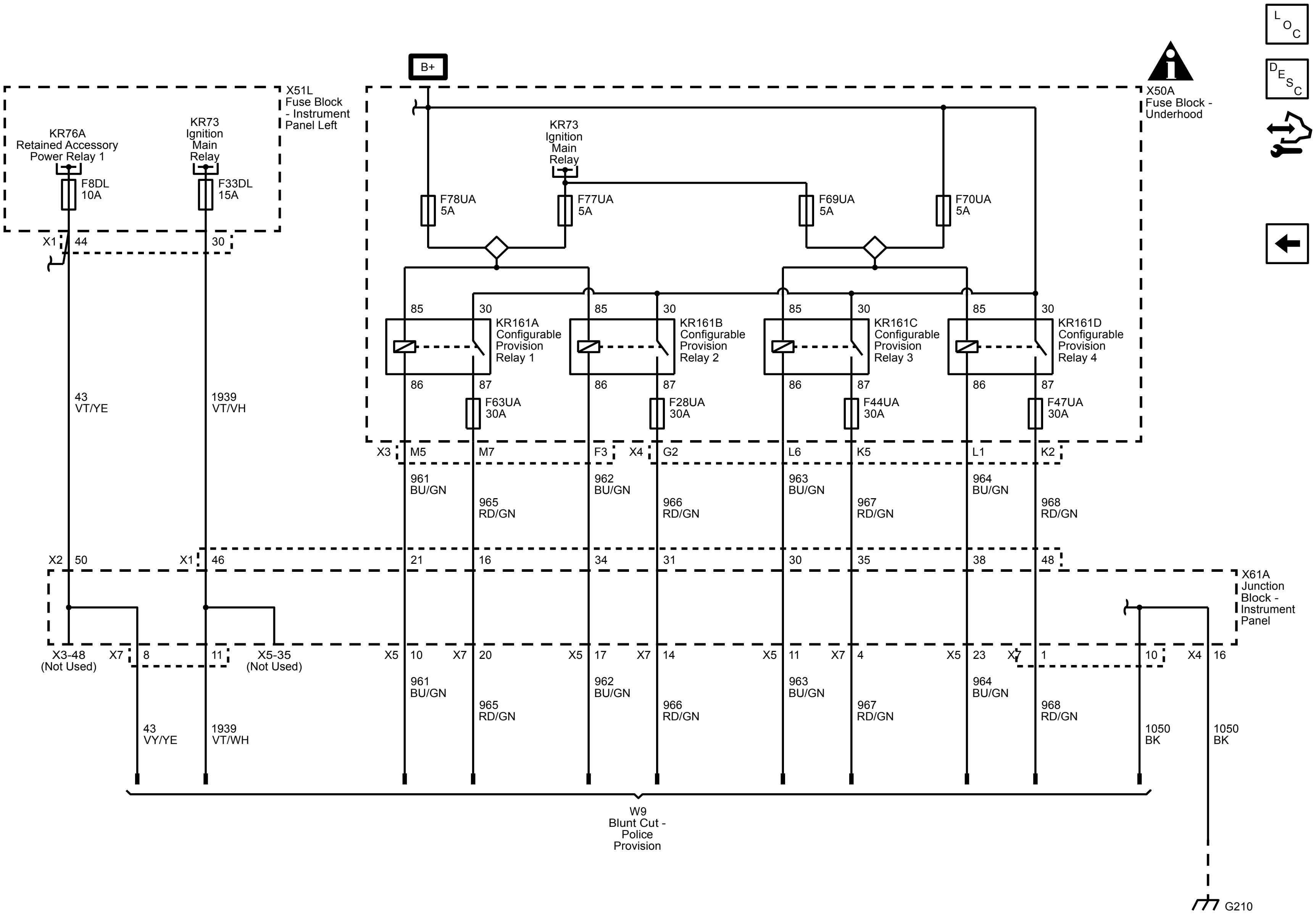

P19AG Speaker - Left Front Door
P19J Speaker - Left Instrument Panel
P19AL Speaker - Left Rear Door
P19AH Speaker - Right Front Door
P19W Speaker - Right Instrument Panel
P19AM Speaker - Right Rear Door
2
1
201 BU 9
118 BN/BU
199 GN 9
116 GN/BK
200 YE 9
117 YE/BK
46 WH 9
115 BU/BK
X500 10 23
X225 33 12
X700 7 16
X600 23 10
X275 33 12
X800 7 16
X225 41 20 14 35
X275 41 20 14 35
X271 5 1 7 3 6 2 8 4
X3 1 9 3 11 2 10 4 12
+ − + − + − + −
A11 Radio


B+
X51L
Fuse Block
- Instrument
Panel Left
F26DL
15A
X2
27
14
7X6/7X7
7X7
4640
RD/VT
4140
RD/GY
A
A
E35L
Exterior
Spot
Lamp -
Left
E35R
Exterior
Spot
Lamp -
Right

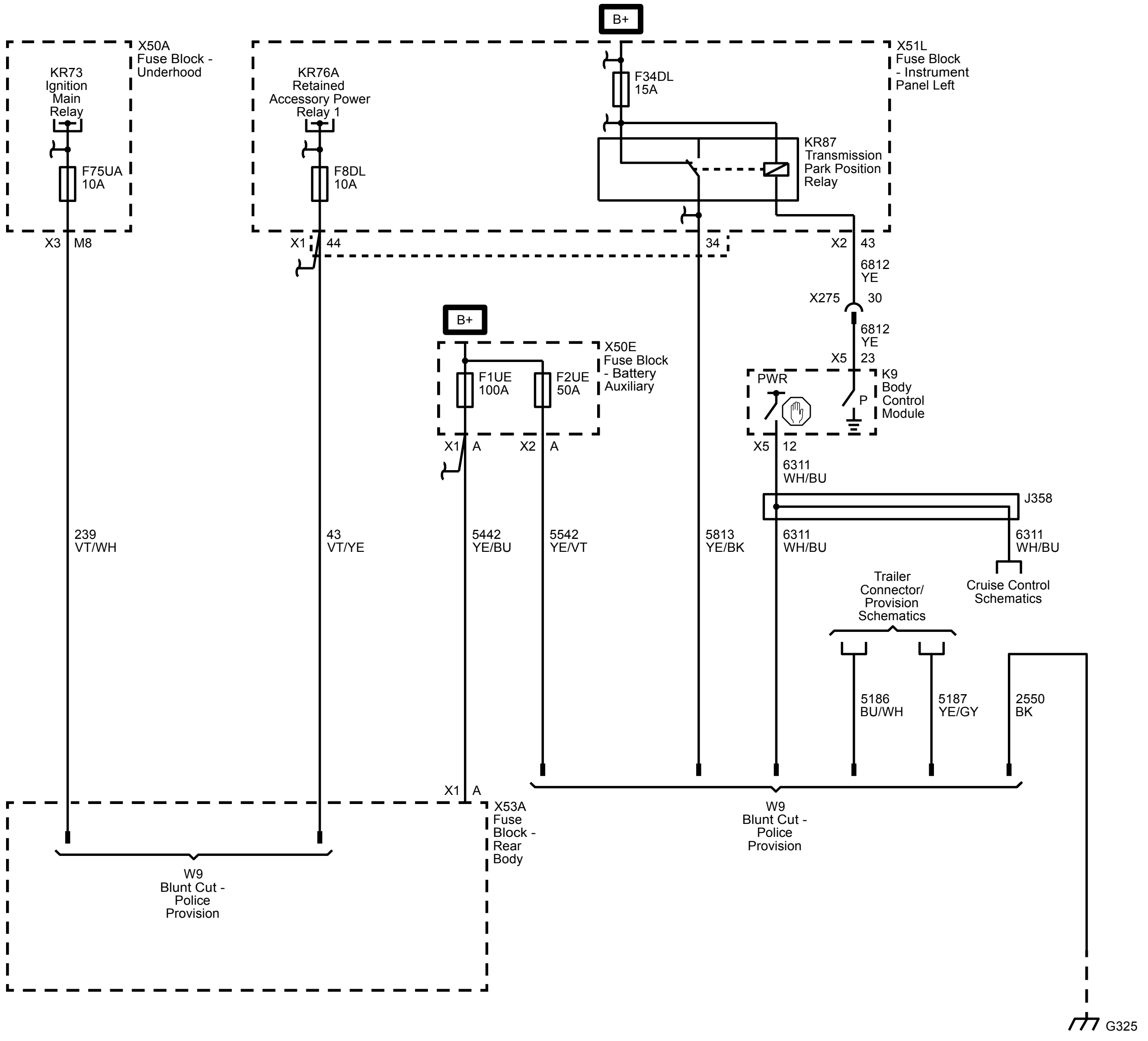
Center Instrument Panel - Marked "Circuit 817"


W9
Blunt Cut -
Police
Provision
817
GN/GY
X7
19
X61A
Junction
Block -
Instrument
Panel
X2
47
817
GN/GY
X185
40
817
GN/GY
33
K17
Electronic
Brake
Control
Module
Km/h
MPH

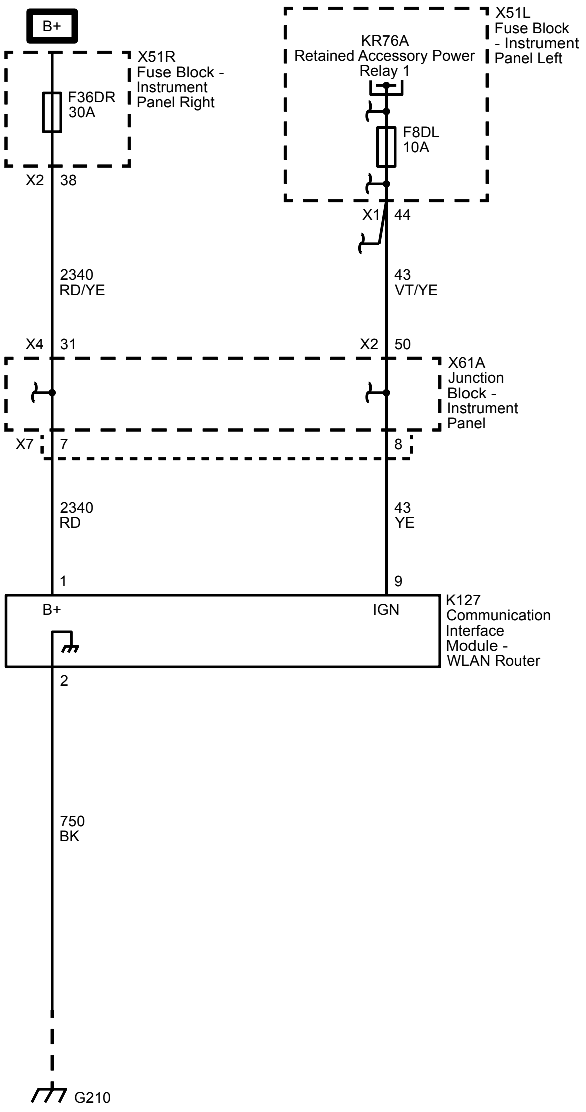
Center Instrument Panel - Marked "Circuit 5W4 /9C1"


L O C
D E S C
B+
X51L Fuse Block - Instrument Panel Left
KR76A Retained Accessory Power Relay 1
KR73 Ignition Main Relay
F8DL 10A
F33DL 15A
X1 44
30
43 VT/YE
1939 VT/VH
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F78UA 5A
F77UA 5A
F69UA 5A
F70UA 5A
85
30
KR161A Configurable Provision Relay 1
KR161B Configurable Provision Relay 2
KR161C Configurable Provision Relay 3
KR161D Configurable Provision Relay 4
86
87
F63UA 30A
F28UA 30A
F44UA 30A
F47UA 30A
X3 M5
M7
F3
X4 G2
L6
K5
L1
K2
961 BU/GN
965 RD/GN
962 BU/GN
966 RD/GN
963 BU/GN
967 RD/GN
964 BU/GN
968 RD/GN
X2 50
X1 46
21
16
34
31
30
35
38
48
X61A Junction Block - Instrument Panel
X3-48 (Not Used)
X7 8
11
X5-35 (Not Used)
X5 10
X7 20
X5 17
X7 14
X5 11
X7 4
X5 23
X7 1
10
X4 16
43 VY/YE
1939 VT/WH
1050 BK
1050 BK
W9 Blunt Cut - Police Provision
G210

Passeenger Footwell and Rear Fuse Block (5W4 or 9C1)

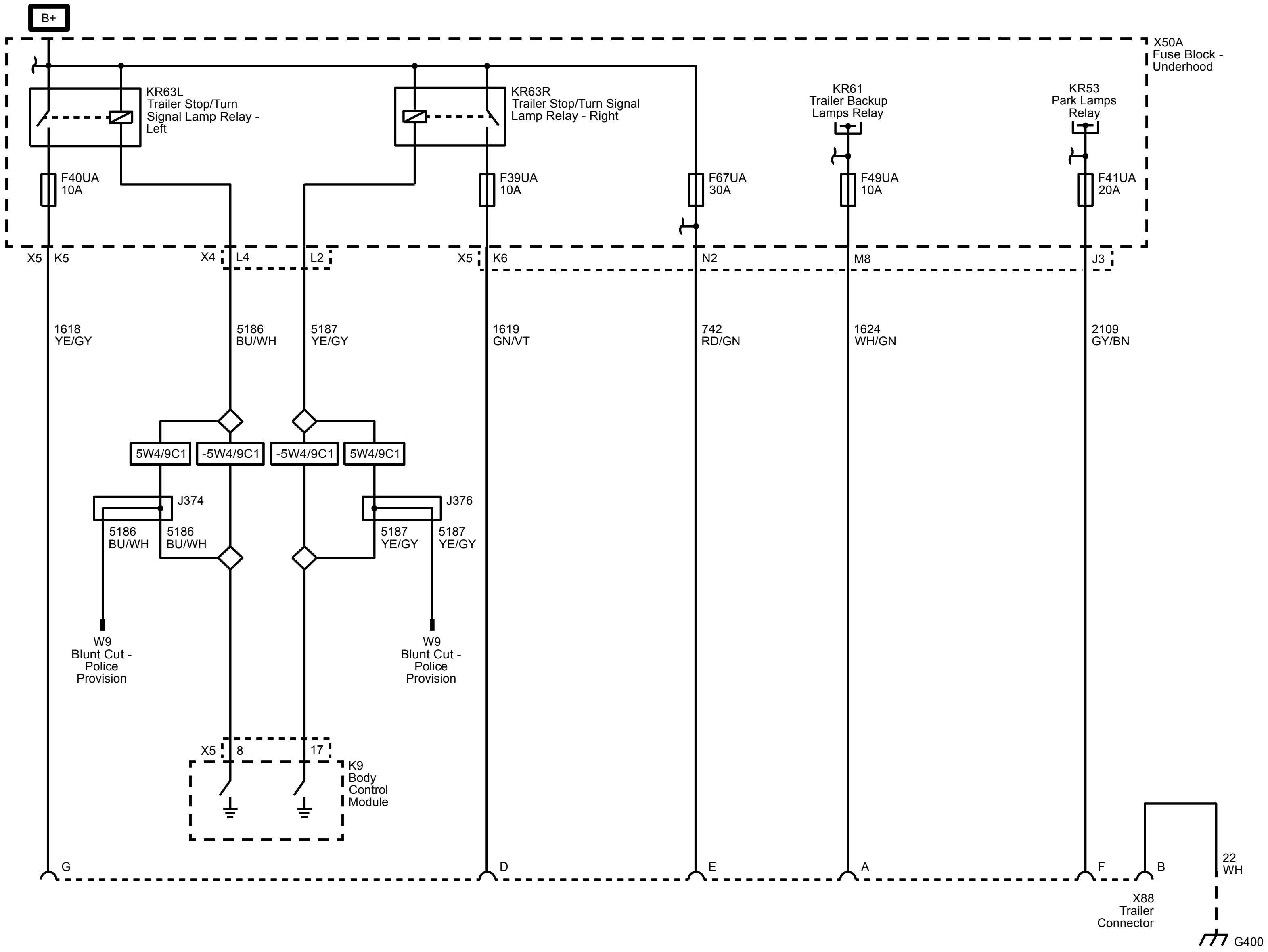

B+
X50A
Fuse Block -
Underhood
KR73
Ignition
Main
Relay
F75UA
10A
X3
M8
239
VT/WH
KR76A
Retained
Accessory Power
Relay 1
F8DL
10A
X1
44
43
VT/YE
X51L
Fuse Block
- Instrument
Panel Left
F34DL
15A
KR87
Transmission
Park Position
Relay
34
X2
43
6812
YE
X275
30
6812
YE
X5
23
B+
X50E
Fuse Block
- Battery
Auxiliary
F1UE
100A
F2UE
50A
X1
A
X2
A
5442
YE/BU
5542
YE/VT
5813
YE/BK
PWR
P
K9
Body
Control
Module
X5
12
6311
WH/BU
J358
6311
WH/BU
6311
WH/BU
Cruise Control
Schematics
Trailer
Connector/
Provision
Schematics
5186
BU/WH
5187
YE/GY
2550
BK
W9
Blunt Cut -
Police
Provision
X1
A
X53A
Fuse
Block -
Rear
Body
W9
Blunt Cut -
Police
Provision
G325

Vehicle WiFi Router (Accessory Router)

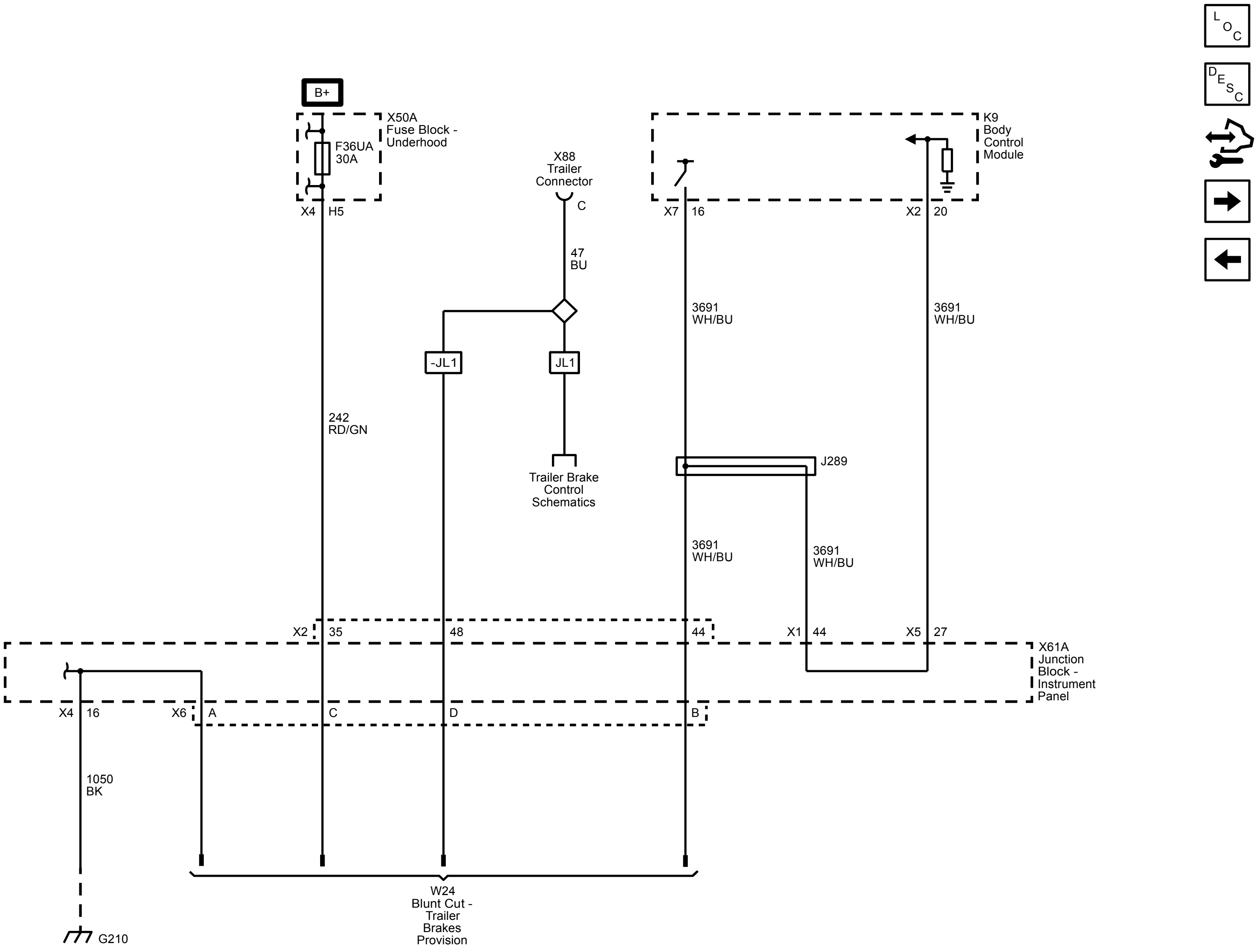

B+
X51R
Fuse Block - Instrument Panel Right
F36DR
30A
X2
38
X51L
Fuse Block - Instrument Panel Left
KR76A
Retained Accessory Power Relay 1
F8DL
10A
X1
44
2340
RD/YE
43
VT/YE
X4
31
X2
50
X61A
Junction Block - Instrument Panel
X7
7
8
2340
RD
43
YE
1
9
B+
IGN
K127
Communication Interface Module - WLAN Router
2
750
BK
G210

Trailer Connector/Provision Schematics

Trailer Connector Pins: A, B, D, E, F, G

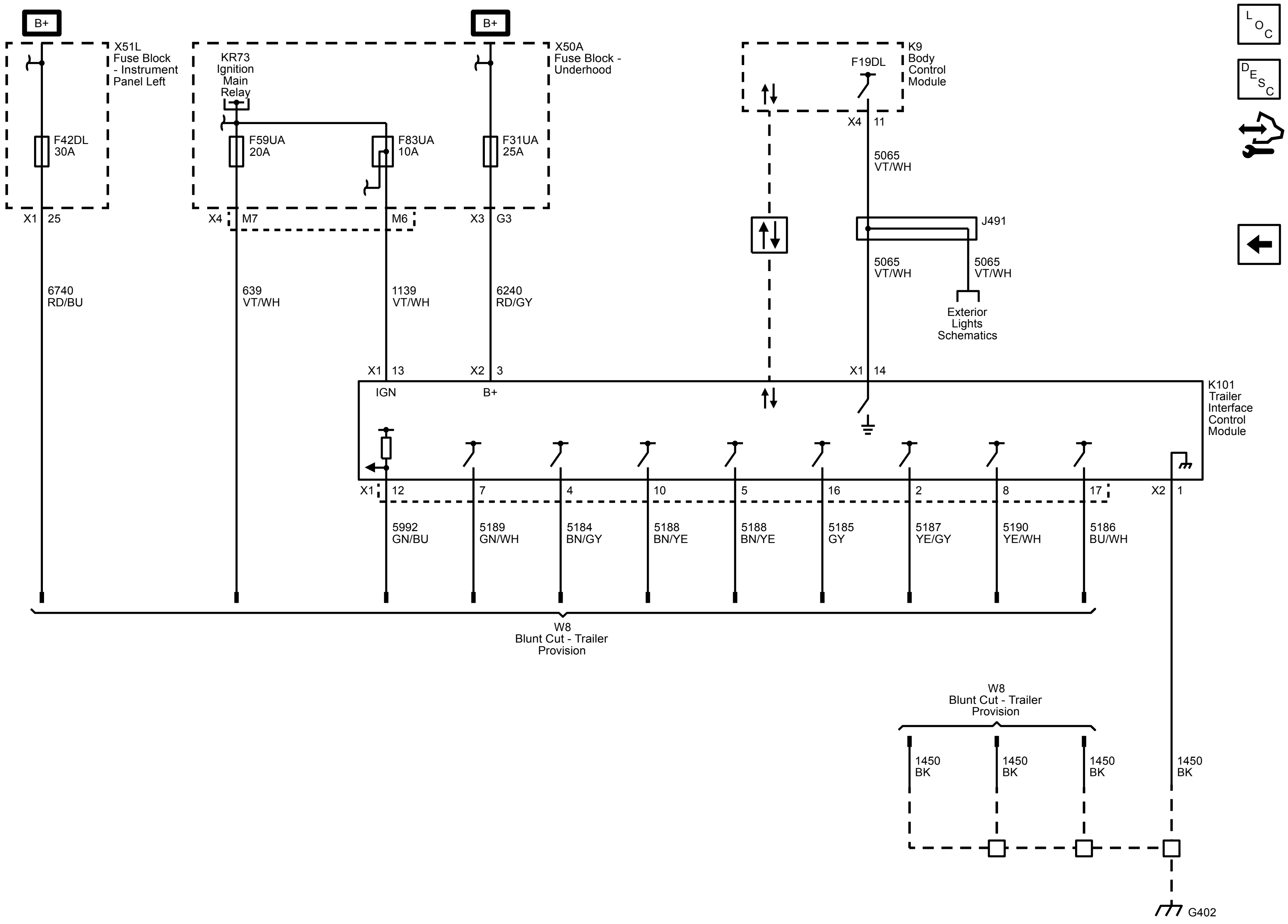

B+
X50A
Fuse Block -
Underhood
KR63L
Trailer Stop/Turn
Signal Lamp Relay -
Left
KR63R
Trailer Stop/Turn Signal
Lamp Relay - Right
KR61
Trailer Backup
Lamps Relay
KR53
Park Lamps
Relay
F40UA
10A
F39UA
10A
F67UA
30A
F49UA
10A
F41UA
20A
X5
K5
X4
L4
L2
X5
K6
N2
M8
J3
1618
YE/GY
5186
BU/WH
5187
YE/GY
1619
GN/VT
742
RD/GN
1624
WH/GN
2109
GY/BN
5W4/9C1
-5W4/9C1
-5W4/9C1
5W4/9C1
J374
J376
5186
BU/WH
5186
BU/WH
5187
YE/GY
5187
YE/GY
W9
Blunt Cut -
Police
Provision
W9
Blunt Cut -
Police
Provision
X5
8
17
K9
Body
Control
Module
G
D
E
A
F
B
22
WH
X88
Trailer
Connector
G400

Trailer Connector Pin: C



L O C
D E S C
B+
X50A Fuse Block - Underhood
F36UA 30A
X4 H5
X88 Trailer Connector
C
47 BU
-JL1
JL1
Trailer Brake Control Schematics
K9 Body Control Module
X7 16
X2 20
3691 WH/BU
3691 WH/BU
242 RD/GN
J289
3691 WH/BU
3691 WH/BU
X2 35
48
44
X1 44
X5 27
X61A Junction Block - Instrument Panel
X4 16
X6 A
C
D
B
1050 BK
G210
W24 Blunt Cut - Trailer Brakes Provision

Trailer Wiring - Export (VQ9)


B+
X51L
Fuse Block
- Instrument
Panel Left
F42DL
30A
X1 25
6740
RD/BU
KR73
Ignition
Main
Relay
F59UA
20A
F83UA
10A
X4 M7
M6
639
VT/WH
1139
VT/WH
B+
X50A
Fuse Block -
Underhood
F31UA
25A
X3 G3
6240
RD/GY
K9
Body
Control
Module
F19DL
X4 11
5065
VT/WH
J491
5065
VT/WH
5065
VT/WH
Exterior
Lights
Schematics
X1 13
X2 3
X1 14
IGN
B+
K101
Trailer
Interface
Control
Module
X1 12
7
4
10
5
16
2
8
17
X2 1
5992
GN/BU
5189
GN/WH
5184
BN/GY
5188
BN/YE
5188
BN/YE
5185
GY
5187
YE/GY
5190
YE/WH
5186
BU/WH
W8
Blunt Cut - Trailer
Provision
W8
Blunt Cut - Trailer
Provision
1450
BK
1450
BK
1450
BK
1450
BK
G402

Master Electrical Component List

Code	Name	Option	Location	Locator View	Connector End View
A3L	Sunshade – Left	—	In the front of the passenger compartment, above the driver seat	—	—
A3R	Sunshade – Right	—	In the front of the passenger compartment, above the passenger seat	—	—
A6D	Fuel Pump and Level Sensor Assembly — Secondary	L96	Under the vehicle, mounted in the rear fuel tank	—	—
A7	Fuel Pump and Level Sensor Assembly	—	Under the vehicle in the fuel tank	—	*A7 Fuel Pump and Level Sensor Assembly*
A9A	Outside Rearview Mirror – Driver	—	Outside the vehicle, at the front of the driver door	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	—
A9B	Outside Rearview Mirror – Passenger	—	Outside the vehicle, at the front of the passenger door	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	—
A10	Inside Rearview Mirror	—	In the passenger compartment, at the top center of the windshield	*Overhead Console Components*	*A10 Inside Rearview Mirror*
A11	Radio	—	In the passenger compartment, center of the instrument panel, behind the HVAC controls	• *Back of Instrument Panel Components (X88/Z88 without D07)* • *Back of Instrument Panel Components (X88/Z88 with D07)*	• *A11 Radio X1* • *A11 Radio X2* • *A11 Radio X3* • *A11 Radio X4* • *A11 Radio X6 (U2M)* • *A11 Radio X7 (IO3)*
A14D	Seat Lumbar Support Pump - Driver	A45, with Y91 or Z75 without ULT	In the passenger compartment, part of the driver seat back	*Driver Seat Back Components*	*A14D Seat Lumbar Support Pump - Driver (A45, with Y91 or Z75 without ULT)*
A14P	Seat Lumbar Support Pump - Passenger	Y91 or Z75 without ULT	In the passenger compartment, part of the passenger seat back	*Passenger Seat Components View*	*A14P Seat Lumbar Support Pump - Passenger (Y91 or Z75 without ULT)*
A16	Transfer Case Motor	NP0 or NQH	On the underbody, mounted to the bottom rear of the transfer case	*Transfer Case Components (NP0 or NQH)*	*A16 Transfer Case Motor (NP0 or NQH)*
A19D	DVD Player - Driver Seat Headrest	AYE	In the passenger compartment, back side of driver seat head rest	—	• *A19D DVD Player - Driver Seat Headrest X1 (AYE)* • *A19D DVD Player - Driver Seat Headrest X2 (AYE)*
A19P	DVD Player - Passenger Seat Headrest	AYE	In the passenger compartment, back side of passenger seat head rest	—	• *A19P DVD Player - Passenger Seat Headrest X1 (AYE)* • *A19P DVD Player - Passenger Seat Headrest X2 (AYE)*

A20	Radio/HVAC Controls	Z75	In the passenger compartment, at the center of the instrument panel, part of the info display module	*Front of Instrument Panel Components (Z75)*	—
A22	Radio Controls	X88 or Z88	In the passenger compartment, at the center of the instrument panel, part of the info display module	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)*	—
A23C	Liftgate Latch Assembly	—	In the passenger compartment, at the bottom middle of the liftgate	*Liftgate Components*	• *A23C Liftgate Latch Assembly (except TB5 or TC2)* • *A23C Liftgate Latch Assembly (TB5 or TC2)*
A23D	Door Latch Assembly – Driver	—	In the passenger compartment, at the middle rear of the driver door	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	*A23D Door Latch Assembly - Driver*
A23LR	Door Latch Assembly – Left Rear	—	In the passenger compartment, at the middle rear of the left rear door	• *Left Rear Door Components (X88 or Z88)* • *Left Rear Door Components (Z75)*	*A23LR Door Latch Assembly - Left Rear*
A23P	Door Latch Assembly – Passenger	—	In the passenger compartment, at the middle rear of the passenger door	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	*A23P Door Latch Assembly - Passenger*
A23RR	Door Latch Assembly – Right Rear	—	In the passenger compartment, at the middle rear of the right rear door	• *Right Rear Door Components (X88 or Z88)* • *Right Rear Door Components (Z75)*	*A23RR Door Latch Assembly - Right Rear*
A24D	Door Handle Assembly – Driver Exterior	—	Outside the vehicle, at the rear of the driver door	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	• *A24D Door Handle Assembly - Driver Exterior (X88 or Z88, with ATH)* • *A24D Door Handle Assembly - Driver Exterior (Z75)*
A24LR	Door Handle Assembly – Left Rear Exterior	—	Outside the vehicle, at the rear of the left rear door	• *Left Rear Door Components (X88 or Z88)* • *Left Rear Door Components (Z75)*	• *A24LR Door Handle Assembly - Left Rear Exterior (X88 or Z88, with ATH)* • *A24LR Door Handle Assembly - Left Rear Exterior (Z75)*
A24P	Door Handle Assembly – Passenger Exterior	—	Outside the vehicle, at the rear of the passenger door	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	• *A24P Door Handle Assembly - Passenger Exterior (X88 or Z88, with ATH)* • *A24P Door Handle Assembly - Passenger Exterior (Z75)*
A24RR	Door Handle Assembly – Right Rear Exterior	—	Outside the vehicle, at the rear of the right rear door	• *Right Rear Door Components (X88 or Z88)* • *Right Rear Door Components (Z75)*	• *A24RR Door Handle Assembly - Right Rear Exterior (X88 or Z88, with ATH)* • *A24RR Door Handle Assembly - Right Rear Exterior (Z75)*

A26	HVAC Controls	X88 or Z88	In the passenger compartment, at the center of the instrument panel, part of the info display module	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)*	—
A33	Media Disc Player	TG5 or U42	In the passenger compartment, lower center of the instrument panel, behind the radio controls	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)* • *Front of Instrument Panel Components (Z75)*	• *A33 Media Disc Player X1 (TG5)* • *A33 Media Disc Player X1 (U42)* • *A33 Media Disc Player X2 (U42)* • *A33 Media Disc Player X3 (U42)* • *A33 Media Disc Player X4 (U42)* • *A33 Media Disc Player X5 (U42 or DNU)*
A34	HVAC Controls – Auxiliary	D07	In the passenger compartment, forward of center, between the driver and passenger seat, at the back of the floor console	• *Center Console Rear Component Views (X88/Z88)* • *Center Console Rear Component Views (Z75)*	*A34 HVAC Controls - Auxiliary (D07)*
A34	HVAC Controls – Auxiliary	AZ3	In the passenger compartment, overhead, forward of center, behind the front bench seat	*Headliner Components*	*A34 HVAC Controls - Auxiliary (AZ3)*
B1	A/C Refrigerant Pressure Sensor	—	In the front of the engine compartment, on the right side of the A/C compressor	• *Right Rear Side of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*B1 A/C Refrigerant Pressure Sensor*
B5LF	Wheel Speed Sensor – Left Front	—	Outside the vehicle, in the left front hub assembly	*Chassis Components View*	*B5LF Wheel Speed Sensor - Left Front*
B5LR	Wheel Speed Sensor – Left Rear	—	Outside the vehicle, in the left rear, along axle at brake rotor	*Chassis Components View*	*B5LR Wheel Speed Sensor - Left Rear*
B5RF	Wheel Speed Sensor – Right Front	—	Outside the vehicle, in the right front hub assembly	*Chassis Components View*	*B5RF Wheel Speed Sensor - Right Front*
B5RR	Wheel Speed Sensor – Right Rear	—	Outside the vehicle, in the right rear, along axle at brake rotor	*Chassis Components View*	*B5RR Wheel Speed Sensor - Right Rear*
B7C	Air Temperature Sensor – Duct Lower Auxiliary	—	In the passenger compartment, in the floor vent of the rear HVAC	—	—
B7D	Air Temperature Sensor – Duct Left Lower	—	In the passenger compartment, behind the instrument panel, on the left side of the HVAC module	*Front of HVAC Assembly Components*	—
B7E	Air Temperature Sensor – Duct Right Lower	—	In the passenger compartment, behind the instrument panel, on the right side of the HVAC module	*Front of HVAC Assembly Components*	—
B7G	Air Temperature Sensor – Duct Upper Auxiliary	—	In the passenger compartment, in the roof vent of the rear HVAC	—	—
B7H	Air Temperature Sensor – Duct Left Upper	—	In the passenger compartment, behind the instrument panel, on the upper left side of the HVAC module	*Back of HVAC Assembly Components*	—
B7J	Air Temperature Sensor – Duct Right Upper	—	In the passenger compartment, behind the instrument panel, on the upper right side of the HVAC module	*Back of HVAC Assembly Components*	—

B9	Ambient Air Temperature Sensor	—	Left front of the vehicle, left of the hood latch assembly	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	• *B9 Ambient Air Temperature Sensor (X88 or Z88)* • *B9 Ambient Air Temperature Sensor (Z75)*
B10B	Ambient Light/Sunload Sensor	—	In the passenger compartment, at the top center of the instrument panel, in the defroster deflector	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)* • *Front of Instrument Panel Components (Z75)*	*B10B Ambient Light/Sunload Sensor*
B12A	Transmission Fluid Pressure Switch	MYC or MYD	Under the vehicle, internal to the transmission assembly, part of the control solenoid valve	—	—
B13	Transmission Fluid Temperature Sensor	—	Under the vehicle, internal to the transmission assembly, part of the control solenoid valve	*Automatic Transmission Valve Body Components (M5U)*	—
B14A	Transmission Output Shaft Speed Sensor	—	Under the vehicle, internal to the transmission assembly	• *Automatic Transmission Internal Components (MYC or MYD)* • *Automatic Transmission Case Components (M5U)*	—
B14C	Transmission Input Shaft Speed Sensor	—	Under the vehicle, internal to the transmission assembly	*Automatic Transmission Case Components (M5U)*	—
B14D	Transmission Intermediate Shaft Speed Sensor	M5U	Under the vehicle, internal to the transmission assembly	*Automatic Transmission Case Components (M5U)*	—
B15	Transmission Internal Mode Switch	M5U	Under the vehicle, internal to the transmission assembly	• *Automatic Transmission Internal Components (MYC or MYD)* • *Automatic Transmission Case Components (M5U)*	*B15 Transmission Internal Mode Switch (M5U)*
B18	Battery Current Sensor	—	In the engine compartment, right rear, near the battery, on the negative battery cable	*Right Rear of Engine Compartment Components (1 of 2)*	*B18 Battery Current Sensor*
B19B	Brake Booster Vacuum Sensor	—	At the rear of the engine compartment, left of the brake fluid reservoir, on brake booster vacuum check valve	*Left Side of Engine Compartment Component View*	*B19B Brake Booster Vacuum Sensor*
B20	Brake Fluid Level Switch	—	At the rear of the engine compartment, on the brake fluid reservoir	*Left Side of Engine Compartment Component View*	*B20 Brake Fluid Level Switch*
B22	Brake Pedal Position Sensor	—	In the passenger compartment, behind the brake pedal assembly	*Behind Left Side of Instrument Panel Components (1 of 2)*	*B22 Brake Pedal Position Sensor*
B23	Camshaft Position Sensor	—	In the engine compartment, at the front of the engine, left side of timing chain cover.	*Front of Engine Components (L83 or L86)*	*B23 Camshaft Position Sensor*
B24	Cellular Phone Microphone	—	In the passenger compartment, at the front center of the headliner, near the left sunshade	*Headliner Components*	*B24 Cellular Phone Microphone*
B26	Crankshaft Position Sensor	—	In the engine compartment, lower right rear of engine block	• *Right Rear Side of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*B26 Crankshaft Position Sensor*

B27D	Door Handle Switch – Driver Exterior	—	Outside the vehicle, at the rear of the driver door, part of the door handle assembly	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	—
B27LR	Door Handle Switch – Left Rear Exterior	—	Outside the vehicle, at the rear of the left rear door, part of the door handle assembly	• *Left Rear Door Components (X88 or Z88)* • *Left Rear Door Components (Z75)*	—
B27P	Door Handle Switch – Passenger Exterior	—	Outside the vehicle, at the rear of the passenger door, part of the door handle assembly	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	—
B27RR	Door Handle Switch – Right Rear Exterior	—	Outside the vehicle, at the rear of the right rear door, part of the door handle assembly	• *Right Rear Door Components (X88 or Z88)* • *Right Rear Door Components (Z75)*	—
B34	Engine Coolant Temperature Sensor	L83 or L86	In the engine compartment, top of the engine, left of the air intake, in the water outlet housing	*Left Side of Engine Components (L83 or L86)*	*B34 Engine Coolant Temperature Sensor*
B34	Engine Coolant Temperature Sensor	L96	In the engine compartment, left side of the engine, under the generator	*Left Rear Side of Engine Components (L96)*	—
B35	Engine Oil Level Switch	L83 or L86	In the engine compartment, bottom right side of engine	*Right Rear Side of Engine Components (L83 or L86)*	*B35 Engine Oil Level Switch*
B37B	Engine Oil Pressure Sensor	L83 or L86	In the engine compartment, top of the engine, below throttle body	*Left Side of Engine Components (L83 or L86)*	*B37B Engine Oil Pressure Sensor*
B37B	Engine Oil Pressure Sensor	L96	In the engine compartment, top of the engine, below throttle body	*Left Rear Side of Engine Components (L96)*	—
B39	A/C Evaporator Temperature Sensor	—	In the passenger compartment, part of HVAC module, behind the instrument panel	*Back of HVAC Assembly Components*	—
B46	Fuel Level Sensor	—	Under the vehicle, inside the fuel tank, part of A6 fuel pump and level sensor	—	—
B46B	Fuel Level Sensor - Secondary	L96	Under the vehicle, at the rear of the vehicle, inside the rear fuel tank, part of A6D fuel pump and level sensor - Secondary	—	—
B47	Fuel Pressure Sensor	—	On the vehicle underbody, on the fuel line, near the transmission crossmember mount	—	*B47 Fuel Pressure Sensor*
B47B	Fuel Rail Pressure Sensor	L83 or L86	In the engine compartment, mounted to the left rear of engine fuel injector rail	*Top of Engine Components (L83 or L86)*	*B47B Fuel Rail Pressure Sensor*
B52C	Heated Oxygen Sensor – Bank 1 Sensor 1	—	On the vehicle underbody, near the top left side of the transmission	• *Heated Oxygen Sensors (L83 or L86)* • *Heated Oxygen Sensors (L96)*	*B52C Heated Oxygen Sensor - Bank 1 Sensor 1*
B52D	Heated Oxygen Sensor – Bank 1 Sensor 2	—	On the vehicle underbody, near the left frame rail downstream from the catalytic converter	• *Heated Oxygen Sensors (L83 or L86)* • *Heated Oxygen Sensors (L96)*	*B52D Heated Oxygen Sensor - Bank 1 Sensor 2*
B52E	Heated Oxygen Sensor – Bank 2 Sensor 1	—	On the vehicle underbody, near the right frame rail even with the catalytic converter	• *Heated Oxygen Sensors (L83 or L86)* • *Heated Oxygen Sensors (L96)*	*B52E Heated Oxygen Sensor - Bank 2 Sensor 1*

B52F	Heated Oxygen Sensor – Bank 2 Sensor 2	—	On the vehicle underbody, near the right frame rail downstream from the catalytic converter	• *Heated Oxygen Sensors (L83 or L86)* • *Heated Oxygen Sensors (L96)*	*B52F Heated Oxygen Sensor - Bank 2 Sensor 2*
B55	Hood Ajar Switch	—	In the front of the engine compartment, part of the hood latch	• *Behind Front Fascia Components (X88/Z88)* • *Behind Front Fascia Components (Z75)*	*B55 Hood Ajar Switch*
B59L	Front Impact Sensor – Left	—	At the front of the vehicle, behind the front fascia, left of center, behind the bumper beam	• *Behind Front Fascia Components (X88/Z88)* • *Behind Front Fascia Components (Z75)*	*B59L Front Impact Sensor - Left*
B59R	Front Impact Sensor – Right	—	At the front of the vehicle, behind the front fascia, right of center, behind the bumper beam	• *Behind Front Fascia Components (X88/Z88)* • *Behind Front Fascia Components (Z75)*	*B59R Front Impact Sensor - Right*
B62D	Seat Position Sensor – Driver	—	In the passenger compartment, right front corner of the driver seat track assembly	*Driver Seat Cushion Components (ULT)*	*B62D Seat Position Sensor - Driver*
B62P	Seat Position Sensor – Passenger	—	In the passenger compartment, left front corner of the passenger seat track assembly	—	*B62P Seat Position Sensor - Passenger*
B63LF	Side Impact Sensor – Left Front	—	In the driver door, behind the trim panel, toward the rear of the door	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	*B63LF Side Impact Sensor - Left Front*
B63LR	Side Impact Sensor – Left Rear	—	Behind the left rear door, near the jam, underneath the trim panel, left of the second row left seat.	*Left Rear of Passenger Compartment Views (Z75)*	*B63LR Side Impact Sensor - Left Rear*
B63RF	Side Impact Sensor – Right Front	—	In the passenger door, behind the trim panel, toward the rear of the door	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	*B63RF Side Impact Sensor - Right Front*
B63RR	Side Impact Sensor – Right Rear	—	Behind the right rear door, near the jam, underneath the trim panel, right of the second row right seat.	—	*B63RR Side Impact Sensor - Right Rear*
B67A	Ultrasonic Intrusion Sensor 1	UTT	In the passenger compartment, at the front of the roof, in the overhead console, part of the Content Theft Deterrent Sensor Module	*Overhead Console Components*	—
B67B	Ultrasonic Intrusion Sensor 2	UTT	In the passenger compartment, at the front of the roof, in the overhead console, part of the Content Theft Deterrent Sensor Module	*Overhead Console Components*	—
B67C	Ultrasonic Intrusion Sensor 3	UTT	In the passenger compartment, at the front of the roof, in the overhead console, part of the Content Theft Deterrent Sensor Module	*Overhead Console Components*	—
B68A	Knock Sensor 1	—	In the engine compartment, on the left side of the engine, near the back, below the cylinder head	*Left Side of Engine Components (L83 or L86)*	*B68A Knock Sensor 1*

B68B	Knock Sensor 2	—	In the engine compartment, on the right side of the engine, near the back, below the cylinder head	• *Right Rear Side of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*B68B Knock Sensor 2*
B70	Liftgate Close Switch	TB5 or TC2	In the passenger compartment, at the bottom of the liftgate, behind the liftgate trim.	*Liftgate Components*	*B70 Liftgate Close Switch (TB5 or TC2)*
B71L	Liftgate Object Sensor – Left	TB5 or TC2	At the rear of the vehicle, along the left edge of the liftgate	*Liftgate Components*	*B71R Liftgate Object Sensor - Right (TB5 or TC2)*
B71R	Liftgate Object Sensor – Right	TB5 or TC2	At the rear of the vehicle, along the right edge of the liftgate	*Liftgate Components*	*B71L Liftgate Object Sensor - Left (TB5 or TC2)*
B74	Manifold Absolute Pressure Sensor	L83 or L86	In the engine compartment, on the top of the intake manifold, left of the throttle body	*Left Side of Engine Components (L83 or L86)*	*B74 Manifold Absolute Pressure Sensor*
B74	Manifold Absolute Pressure Sensor	L96	In the engine compartment, on the top of the engine, behind the throttle body	*Left Rear Side of Engine Components (L96)*	—
B75C	Multifunction Intake Air Sensor	—	Right side of the engine compartment, in the air intake duct, near the air cleaner	• *Right Rear Side of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*B75C Multifunction Intake Air Sensor*
B77LF	Radio Volume Compensator Interior Noise Microphone – Left Front	NKC	In the passenger compartment, on the left side of the headliner, at the over head grab handle	*Headliner Components*	*B77LF Radio Volume Compensator Interior Noise Microphone - Left Front (NKC)*
B77R	Radio Volume Compensator Interior Noise Microphone – Rear	NKC	In the passenger compartment, at the rear of the headliner	*Headliner Components*	*B77R Radio Volume Compensator Interior Noise Microphone - Rear (NKC)*
B77RF	Radio Volume Compensator Interior Noise Microphone – Right Front	NKC	In the passenger compartment, on the right side of the headliner, at the over head grab handle	*Headliner Components*	*B77RF Radio Volume Compensator Interior Noise Microphone - Right Front (NKC)*
B78A	Front Object Sensor – Left Outer	UD5	At the front of the vehicle, mounted in the front bumper	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	*B78A Front Object Sensor - Left Outer (UD5)*
B78B	Front Object Sensor – Right Outer	UD5	At the front of the vehicle, mounted in the front bumper	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	*B78B Front Object Sensor - Right Outer (UD5)*
B78C	Front Object Sensor – Left Middle	UD5	At the front of the vehicle, mounted in the front bumper	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	*B78C Front Object Sensor - Left Middle (UD5)*
B78D	Front Object Sensor – Right Middle	UD5	At the front of the vehicle, mounted in the front bumper	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	*B78D Front Object Sensor - Right Middle (UD5)*

B78E	Rear Object Sensor – Left Middle	UD5 or UD7	At the rear of the vehicle, mounted in the rear bumper	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*B78E Rear Object Sensor - Left Middle (UD5 or UD7)*
B78F	Rear Object Sensor – Right Middle	UD5 or UD7	At the rear of the vehicle, mounted in the rear bumper	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*B78F Rear Object Sensor - Right Middle (UD5 or UD7)*
B78G	Rear Object Sensor – Left Outer	UD5 or UD7	At the rear of the vehicle, mounted in the rear bumper	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*B78G Rear Object Sensor - Left Outer (UD5 or UD7)*
B78H	Rear Object Sensor – Right Outer	UD5 or UD7	At the rear of the vehicle, mounted in the rear bumper	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*B78H Rear Object Sensor - Right Outer (UD5 or UD7)*
B80	Park Brake Switch	without J71	In the passenger compartment, at the left side of the Driver Footwell, on top of brake pedal assembly	*Left Front of Passenger Compartment Views (Z75)*	*B80 Park Brake Switch (without J71)*
B81B	Park Position Switch	—	In the passenger compartment, on the steering column near the base of the shifter	*Steering Column Components (2 of 2)*	*B81B Park Position Switch*
B87	Rearview Camera	UVC or UVH	At the rear of the vehicle, on the outside of the liftgate, in the license plate bezel	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	• *B87 Rearview Camera (UVC)* • *B87 Rearview Camera (UVH)*
B88D	Seat Belt Switch – Driver	—	In the passenger compartment, part of the driver seat belt buckle	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*B88D Seat Belt Switch - Driver*
B88P	Seat Belt Switch – Passenger	—	In the passenger compartment, part of the passenger front seat belt buckle	*Passenger Seat Cushion Components (without ULT)*	*B88P Seat Belt Switch - Passenger*
B99	Steering Wheel Angle Sensor	—	In the passenger compartment, near the base of the steering column, near the floor	*Steering Column Components (1 of 2)*	*B99 Steering Wheel Angle Sensor*
B107	Accelerator Pedal Position Sensor	—	In the passenger compartment, on the driver floor board above the accelerator pedal	*Behind Left Side of Instrument Panel Components (1 of 2)*	*B107 Accelerator Pedal Position Sensor*
B115	Vehicle Speed Sensor	NP0 or NQH	Under the vehicle, center, forward of middle, on top of transfer case	*Transfer Case Components (NP0 or NQH)*	*B115 Vehicle Speed Sensor (NP0 or NQH)*
B118B	Windshield Washer Fluid Level Switch	—	In the engine compartment, left front, on the bottom of the washer reservoir bottle	*Left Front Corner of Vehicle Components*	*B118B Windshield Washer Fluid Level Switch*
B119	Multi-axis Acceleration Sensor	UGN	In the passenger compartment, under floor console, next to the Inflatable Restraint Sensing and Diagnostic Module	*Front Center of The Passenger Compartment Components*	*B119 Multi-axis Acceleration Sensor (UGN)*

B124LR	Folding Seat Back Position Switch – Left Rear	ATN or ATT	In the passenger compartment, part of the left second row seat, located below the outboard seat back hinge	*2nd Row Left Bucket Seat Components (ATN)*	*B124LR Folding Seat Back Position Switch - Left Rear (ATN or ATT)*
B124RR	Folding Seat Back Position Switch – Right Rear	ATN or ATT	In the passenger compartment, part of the right second row seat, located below the outboard seat back hinge	*2nd Row Right Bucket Seat Components (ATN)*	*B124RR Folding Seat Back Position Switch - Right Rear (ATN or ATT)*
B137B	Power Steering Shaft Torque/Position Sensor	—	Under the vehicle, near the steering gear assembly	—	*B137B Power Steering Shaft Torque/Position Sensor*
B150	Fuel Tank Pressure Sensor	—	Under the vehicle, at the rear, mounted to the EVAP cannister	*Chassis Components View*	*B150 Fuel Tank Pressure Sensor*
B152LF	Suspension Position Sensor — Left Front	Z95	Outside the vehicle, at the left front corner, rear side of the strut tower	—	*B152LF Suspension Position Sensor - Left Front (Z95)*
B152LR	Suspension Position Sensor — Left Rear	Z95	Outside the vehicle, at the left rear corner, above the upper control arm mount to the frame rail	*Wheels/Vehicle Underbody Component Views*	*B152LR Suspension Position Sensor - Left Rear (Z85 or Z95)*
B152RF	Suspension Position Sensor — Right Front	Z95	Outside the vehicle, at the right front corner, rear side of the strut tower	—	*B152RF Suspension Position Sensor - Right Front (Z95)*
B152RR	Suspension Position Sensor — Right Rear	Z95	Outside the vehicle, at the right rear corner, above the upper control arm mount to the frame rail	*Wheels/Vehicle Underbody Component Views*	*B152RR Suspension Position Sensor - Right Rear (Z85 or Z95)*
B155	Adjustable Pedal Position Sensor	—	In the passenger compartment, at the front, part of the pedal assembly	—	—
B159L	Glass Breakage Sensor — Left	UTT	In the rear compartment, left side, underneath rear quarter glass window	*Left Rear Cargo Area Components*	*B159L Glass Breakage Sensor - Left (UTT)*
B159R	Glass Breakage Sensor — Right	UTT	In the rear compartment, right side, underneath rear quarter glass window	*Right Rear Cargo Area Components*	*B159R Glass Breakage Sensor - Right (UTT)*
B165	Content Theft Deterrent Sensor Module	UTT	In the passenger compartment, at the front of the roof, in the overhead console	—	*B165 Content Theft Deterrent Sensor Module (UTT)*
B174G	Frontview Camera - Grille	UVH	At the front of the vehicle, center, in the upper grille	—	*B174G Frontview Camera - Grille (UVH)*
B174W	Frontview Camera - Windshield	UFL, UHX, or UGN	In the passenger compartment, at the top middle of the windshield	*Overhead Console Components*	• *B174W Frontview Camera - Windshield (UFL)* • *B174W Frontview Camera - Windshield (UGN with Z75)*
B196	Air Suspension Pressure Sensor	Z85 or Z95	under the vehicle, at the left rear, part of the level ride compressor	—	—
B198	Fuel Composition Sensor	—	Under the vehicle, between the fuel tank and the electronic brake control module, on the main fuel line	—	*B198 Fuel Composition Sensor*
B200	Rain Sensor Module	—	In the passenger compartment, at the top middle of the windshield	—	*B200 Rain Sensor Module*
B218L	Side Object Sensor Module – Left	UKC	At the left rear corner of the vehicle, mounted to the inside of the rear fascia	*Behind Rear Fascia Components*	*B218L Side Object Sensor Module - Left (UKC)*
B218R	Side Object Sensor Module – Right	UKC	At the right rear corner of the vehicle, mounted to the inside of the rear fascia	*Behind Rear Fascia Components*	*B218R Side Object Sensor Module - Right (UKC)*

B225L	Sideview Camera – Left	UVH	Outside the vehicle, in the left outside rearview mirror	—	*B225L Sideview Camera - Left (UVH)*
B225R	Sideview Camera – Right	UVH	Outside the vehicle, in the right outside rearview mirror	—	*B225R Sideview Camera - Right (UVH)*
B227	Gear Position Sensor	NP0 or NQH	Under the vehicle, on the top rear of the transfer case	*Transfer Case Components (NP0 or NQH)*	*B227 Gear Position Sensor (NP0 or NQH)*
B233B	Radar Sensor Module – Long Range	UVZ without AVF	At the front of the vehicle, mounted in the center of the upper grille	*Front of Vehicle Components (Z75)*	*B233B Radar Sensor Module - Long Range (UVZ or UGN with Z75)*
B233B	Radar Sensor Module – Long Range	UVZ with AVF	At the front of the vehicle, behind the front fascia, center, mounted to the bottom of the front bumper	—	*B233B Radar Sensor Module - Long Range (UVZ or UGN with Z75)*
B233LF	Radar Sensor Module – Short Range Left Front	UVZ	At the front of the vehicle, mounted to the inside left of the front fascia	—	*B233LF Radar Sensor Module - Short Range Left Front (UVZ)*
B233LR	Radar Sensor Module – Short Range Left Rear	UVZ	At the rear of the vehicle, mounted to the inside of the rear fascia left of center	*Behind Rear Fascia Components*	*B233LR Radar Sensor Module - Short Range Left Rear (UVZ)*
B233RF	Radar Sensor Module – Short Range Right Front	UVZ	At the front of the vehicle, mounted to the inside right of the front fascia	—	*B233RF Radar Sensor Module - Short Range Right Front (UVZ)*
B233RR	Radar Sensor Module – Short Range Right Rear	UVZ	At the rear of the vehicle, mounted to the inside of the rear fascia right of center	*Behind Rear Fascia Components*	*B233RR Radar Sensor Module - Short Range Right Rear (UVZ)*
B275A	Hands-Free Liftgate Sensor — Upper	TC2	At the rear of the vehicle, center, mounted to the underside of the rear bumper, above trailer hitch	—	—
B275B	Hands-Free Liftgate Sensor — Lower	TC2	At the rear of the vehicle, center, mounted to the underside of the rear bumpe, below trailer hitch	—	—
C1	Battery	—	In the engine compartment, on the left side, near the underhood fuse block	*Right Rear of Engine Compartment Components (1 of 2)*	• *C1 Battery (+)* • *C1 Battery (-)*
C1B	Battery — Auxiliary	5W4 or 9C1	In the engine compartment, on the left side, forward of the underhood fuse block	*Left Side of Engine Compartment Component View*	• *C1B Battery - Auxiliary (+) (5W4 or 9C1)* • *C1B Battery - Auxiliary (-) (5W4 or 9C1)*
E1A	Accent Lamp – Driver Seat	AN3 or A95	In the passenger compartment, under the driver seat	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*E1A Accent Lamp - Driver Seat (A95 or AN3)*
E1AA	Floor Accent Lamp – Left Front	—	In the passenger compartment, under the left side of the instrument panel	• *Back of Instrument Panel Components (X88/Z88 with D07)* • *Back of Instrument Panel Components (X88/Z88 without D07)* • *Back of Instrument Panel Components (Z75)*	*E1AA Floor Accent Lamp - Left Front*

E1AB	Floor Accent Lamp – Right Front	—	In the passenger compartment, under the right side of the instrument panel	• Back of Instrument Panel Components (X88/Z88 with D07) • Back of Instrument Panel Components (X88/Z88 without D07) • Back of Instrument Panel Components (Z75)	E1AB Floor Accent Lamp - Right Front
E1B	Accent Lamp – Passenger Seat	AN3 or A95	In the passenger compartment, under the passenger seat	• Passenger Seat Cushion Components (without ULT) • Passenger Seat Cushion Components (ULT)	E1B Accent Lamp - Passenger Seat (A95 or AN3)
E1C	Accent Lamp – Driver Door Handle	—	In the passenger compartment, forward of center, left side, on the driver door, near the door handle	• Driver Door Components (X88 or Z88) • Driver Door Components (Z75)	E1C Accent Lamp - Driver Door Handle
E1D	Accent Lamp – Driver Door	Z75	In the passenger compartment, forward of center, left side, on the driver door, in the arm rest	Driver Door Components (Z75)	E1D Accent Lamp - Driver Door (Z75)
E1E	Accent Lamp – Left Rear Door Handle	—	In the passenger compartment, rearward of center, left side, on the left rear door, near the door handle	• Left Rear Door Components (X88 or Z88) • Left Rear Door Components (Z75)	• E1E Accent Lamp - Left Rear Door Handle (X88 or Z88) • E1E Accent Lamp - Left Rear Door Handle (Z75)
E1F	Accent Lamp – Right Rear Door Handle	—	In the passenger compartment, rearward of center, right side, on the right rear door, near the door handle	• Right Rear Door Components (X88 or Z88) • Right Rear Door Components (Z75)	• E1F Accent Lamp - Right Rear Door Handle (X88 or Z88) • E1F Accent Lamp - Right Rear Door Handle (Z75)
E1LR	Accent Lamp – Left Rear Door	Z75	In the passenger compartment, rearward of center, left side, on the left rear door, above the door handle	Left Rear Door Components (Z75)	E1LR Accent Lamp - Left Rear Door (Z75)
E1M	Accent Lamp – Passenger Door Handle	—	In the passenger compartment, forward of center, right side, on the passenger door, near the door handle	• Passenger Door Components (X88 or Z88) • Passenger Door Components (Z75)	E1M Accent Lamp - Passenger Door Handle
E1P	Accent Lamp – Passenger Door	Z75	In the passenger compartment, forward of center, right side, on the passenger door, in the arm rest	Passenger Door Components (Z75)	E1P Accent Lamp - Passenger Door (Z75)
E1RR	Accent Lamp – Right Rear Door	Z75	In the passenger compartment, rearward of center, right side, on the right rear door, above the door handle	Right Rear Door Components (Z75)	E1RR Accent Lamp - Right Rear Door (Z75)
E2LF	Side Marker Lamp – Left Front	—	At the left front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	• Headlamp Components (X88) • Headlamp Components (Z88) • Headlamp Components (Z75)	—
E2RF	Side Marker Lamp – Right Front	—	At the right front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	• Headlamp Components (X88) • Headlamp Components (Z88) • Headlamp Components (Z75)	—
E4A	Cornering Lamp – Left	Z75	At the front left corner of the vehicle, in the front fascia, in the multifunction lamp assembly	—	—

E4AC	Park/Daytime Running Lamp – Left	X88 or Z88	At the left front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	—
E4AD	Park/Daytime Running Lamp – Right	X88 or Z88	At the right front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	—
E4AL	Park/Daytime Running Lamp – Left Lower	Z75	At the front left corner of the vehicle, in the front fascia, in the multifunction lamp assembly	*Front of Vehicle Components (Z75)*	—
E4AM	Park/Daytime Running Lamp – Right Lower	Z75	At the front right corner of the vehicle, in the front fascia, in the multifunction lamp assembly	*Front of Vehicle Components (Z75)*	—
E4B	Cornering Lamp – Right	Z75	At the front right corner of the vehicle, in the front fascia, in the multifunction lamp assembly	—	—
E4C	Daytime Running Lamp – Left	Z75	At the left front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	*Headlamp Components (Z75)*	—
E4D	Daytime Running Lamp – Right	Z75	At the right front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	*Headlamp Components (Z75)*	—
E4E	Headlamp – Left High Beam	X88 or Z88	At the left front corner of the vehicle, inside the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	*E4E Headlamp - Left High Beam (X88 or Z88)*
E4E	Headlamp – Left High Beam	Z75	At the left front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	*Headlamp Components (Z75)*	—
E4F	Headlamp – Right High Beam	X88 or Z88	At the right front corner of the vehicle, inside the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	*E4F Headlamp - Right High Beam (X88 or Z88)*
E4F	Headlamp – Right High Beam	Z75	At the right front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	*Headlamp Components (Z75)*	—
E4G	Headlamp – Left Low Beam	X88 or Z88	At the left front corner of the vehicle, inside the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	*E4G Headlamp - Left Low Beam (X88 or Z88 without T4F)*
E4G	Headlamp – Left Low Beam	Z75	At the left front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	*Headlamp Components (Z75)*	—
E4H	Headlamp – Right Low Beam	X88 or Z88	At the right front corner of the vehicle, inside the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	*E4H Headlamp - Right Low Beam (X88 or Z88 without T4F)*
E4H	Headlamp – Right Low Beam	Z75	At the right front corner of the vehicle, inside the headlamp assembly, part of the headlamp assembly	*Headlamp Components (Z75)*	—
E4J	Park Lamp – Left Front	X88 without Y91	At the left front corner of the vehicle, inside the headlamp assembly	*Headlamp Components (X88)*	—
E4K	Park Lamp – Right Front	X88 without Y91	At the right front corner of the vehicle, inside the headlamp assembly	*Headlamp Components (X88)*	—

E4LF	Turn Signal Lamp – Left Front	X88 or Z88	At the left front corner of the vehicle, inside the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	—
E4LF	Turn Signal Lamp – Left Front	Z75	At the front left corner of the vehicle, in the front fascia, in the multifunction lamp assembly	*Front of Vehicle Components (Z75)*	*E4LF Turn Signal Lamp - Left Front (Z75)*
E4LR	Turn Signal Lamp – Left Rear	Z88, Z75, or X88 with T89	At the left rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)* • *Tail Lamp Components (Z75)*	—
E4RF	Turn Signal Lamp – Right Front	X88 or Z88	At the right front corner of the vehicle, inside the headlamp assembly	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	—
E4RF	Turn Signal Lamp – Right Front	Z75	At the front right corner of the vehicle, in the front fascia, in the multifunction lamp assembly	*Front of Vehicle Components (Z75)*	*E4RF Turn Signal Lamp - Right Front (Z75)*
E4RR	Turn Signal Lamp – Right Rear	Z88, Z75, or X88 with T89	At the right rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)* • *Tail Lamp Components (Z75)*	—
E4Y	Turn Signal Repeater Lamp – Left	DL3	At the front of the Left front door, part of the Outside Rearview Mirror, part of the mirror glass	*Door Mirror Components*	—
E4Y	Turn Signal Repeater Lamp – Left	DR4	At the front of the Left front door, part of the Outside Rearview Mirror	—	—
E4Z	Turn Signal Repeater Lamp – Right	DL3	At the front of the Right front door, part of the Outside Rearview Mirror, part of the mirror glass	*Door Mirror Components*	—
E4Z	Turn Signal Repeater Lamp – Right	DR4	At the front of the Right front door, part of the Outside Rearview Mirror	—	—
E5A	Backup Lamp – Left	X88 or Z88	At the left rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)*	*E5A Backup Lamp - Left (X88 or Z88)*
E5A	Backup Lamp – Left	Z75	At the left rear corner of the vehicle, inside the tail lamp assembly, part of the tail lamp assembly	*Tail Lamp Components (Z75)*	—
E5B	Backup Lamp – Right	X88 or Z88	At the right rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)*	*E5B Backup Lamp - Right (X88 or Z88)*
E5B	Backup Lamp – Right	Z75	At the right rear corner of the vehicle, inside the tail lamp assembly, part of the tail lamp assembly	*Tail Lamp Components (Z75)*	—
E5E	Tail Lamp – Left	—	At the left rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)* • *Tail Lamp Components (Z75)*	—
E5F	Tail Lamp – Right	—	At the right rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)* • *Tail Lamp Components (Z75)*	—

E5L	Stop Lamp – Left	Z88, Z75, or X88 with T89	At the left rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)* • *Tail Lamp Components (Z75)*	—
E5R	Stop Lamp – Right	Z88, Z75, or X88 with T89	At the right rear corner of the vehicle, inside the tail lamp assembly	• *Tail Lamp Components (X88)* • *Tail Lamp Components (Z88)* • *Tail Lamp Components (Z75)*	—
E5AS	Stop/Turn Signal Lamp — Left Upper	X88 without T89	At the left rear corner of the vehicle, inside the tail lamp assembly	*Tail Lamp Components (X88)*	—
E5AT	Stop/Turn Signal Lamp — Left Lower	X88 without T89	At the left rear corner of the vehicle, inside the tail lamp assembly	*Tail Lamp Components (X88)*	—
E5AU	Stop/Turn Signal Lamp — Right Upper	X88 without T89	At the right rear corner of the vehicle, inside the tail lamp assembly	*Tail Lamp Components (X88)*	—
E5AV	Stop/Turn Signal Lamp — Right Lower	X88 without T89	At the right rear corner of the vehicle, inside the tail lamp assembly	*Tail Lamp Components (X88)*	—
E6	Center High Mounted Stop Lamp	—	At the rear of the vehicle, center, mounted above the liftgate window	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*E6 Center High Mounted Stop Lamp*
E7L	License Plate Lamp – Left	—	At the rear of the vehicle, near center, mounted above the license plate mount	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*E7L License Plate Lamp - Left*
E7R	License Plate Lamp – Right	—	At the rear of the vehicle, near center, mounted above the license plate mount	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*E7R License Plate Lamp - Right*
E8A	Door Sill Plate Lamp – Driver	Z75	In the passenger compartment, forward of center, left, at the bottom of the driver door opening on the sill	*Left Front of Passenger Compartment Views (Z75)*	*E8A Door Sill Plate Lamp - Driver (Z75)*
E8B	Door Sill Plate Lamp – Passenger	Z75	In the passenger compartment, forward of center, right, at the bottom of the passenger door opening on the sill	—	*E8B Door Sill Plate Lamp - Passenger (Z75)*
E8Q	Door Sill Plate Lamp – Left Rear	Z75	In the passenger compartment, forward of center, left, at the bottom of the left rear door opening on the sill	*Left Rear of Passenger Compartment Views (Z75)*	*E8Q Door Sill Plate Lamp - Left Rear (Z75)*
E8R	Door Sill Plate Lamp – Right Rear	Z75	In the passenger compartment, forward of center, right, at the bottom of the right rear door opening on the sill	—	*E8R Door Sill Plate Lamp - Right Rear (Z75)*
E8XA	Door Handle Courtesy Lamp – Driver Exterior	HD7	On the outside of the vehicle, left side, rear of driver door, part of the door handle assembly	—	—
E8XB	Door Handle Courtesy Lamp – Passenger Exterior	HD7	On the outside of the vehicle, right side, rear of passenger door, part of the door handle assembly	—	—

E8XC	Door Handle Courtesy Lamp – Left Rear Exterior	HD7	On the outside of the vehicle, left side, rear of left rear door, part of the door handle assembly	—	—
E8XD	Door Handle Courtesy Lamp – Right Rear Exterior	HD7	On the outside of the vehicle, right side, rear of right rear door, part of the door handle assembly	—	—
E8YD	Outside Rearview Mirror Courtesy Lamp – Driver	DL3	At the front of the Left front door, bottom of the Outside Rearview Mirror	*Door Mirror Components*	*E8YD Outside Rearview Mirror Courtesy Lamp - Driver (DL3)*
E8YP	Outside Rearview Mirror Courtesy Lamp – Passenger	DL3	At the front of the Right front door, bottom of the Outside Rearview Mirror	*Door Mirror Components*	*E8YP Outside Rearview Mirror Courtesy Lamp - Passenger (DL3)*
E8ZL	Running Board Step Courtesy Lamp – Left	BRS	Outside of vehicle, left side, under the rocker, mounted in the running board	—	—
E8ZR	Running Board Step Courtesy Lamp – Right	BRS	Outside of vehicle, right side, under the rocker, mounted in the running board	—	—
E13LA	Headlamp Assembly – Left	—	At the left front corner of the vehicle	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	—
E13RA	Headlamp Assembly – Right	—	At the right front corner of the vehicle	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	—
E14A	Seat Heating Element – Driver Back	KA1 or KB6	In the passenger compartment, in the driver seat back	*Driver Seat Back Components*	*E14A Seat Heating Element - Driver Back (KA1 or KB6)*
E14B	Seat Heating Element – Driver Cushion	KA1 or KB6	In the passenger compartment, part of the driver seat cushion	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*E14B Seat Heating Element - Driver Cushion (KA1 or KB6)*
E14C	Seat Heating Element – Passenger Back	KA1 or KB6	In the passenger compartment, in the passenger seat back	*Passenger Seat Components View*	*E14C Seat Heating Element - Passenger Back (KA1 or KB6)*
E14D	Seat Heating Element – Passenger Cushion	KA1 or KB6	In the passenger compartment, part of the passenger seat cushion	*Passenger Seat Cushion Components (without ULT)*	*E14D Seat Heating Element - Passenger Cushion (KA1 or KB6)*
E14F	Seat Heating Element – Left Rear Cushion	KA6	In the passenger compartment, in the 2nd row seat, left cushion	• *2nd Row Left Bucket Seat Components (ATN)* • *2nd Row Seat Cushions Components (ATT)*	*E14F Seat Heating Element - Left Rear Cushion (KA6)*
E14H	Seat Heating Element – Right Rear Cushion	KA6	In the passenger compartment, in the 2nd row seat, right cushion	• *2nd Row Right Bucket Seat Components (ATN)* • *2nd Row Seat Cushions Components (ATT)*	*E14H Seat Heating Element - Right Rear Cushion (KA6)*
E15	Steering Wheel Heater	UVD	In the passenger compartment, in the steering wheel.	—	*E15 Steering Wheel Heater (UVD)*

E17D	Outside Rearview Mirror Glass – Driver	—	Outside of the vehicle, left side, forward on the driver door, inside the outside rear view mirror	—	• *E17D Outside Rearview Mirror Glass - Driver X1 (DL3 or DR4)* • *E17D Outside Rearview Mirror Glass - Driver X2 (DL3 or DR4)* • *E17D Outside Rearveiw Mirror Glass - Driver X3 (UKC)* • *E17D Outside Rearveiw Mirror Glass - Driver X4 (DL3)*
E17P	Outside Rearview Mirror Glass – Passenger	—	Outside of the vehicle, right side, forward on the passenger door, inside the outside rear view mirror	—	• *E17P Outside Rearview Mirror Glass - Passenger X1 (DL3 or DR4)* • *E17P Outside Rearview Mirror Glass - Passenger X2 (DL3 or DR4)* • *E17P Outside Rearveiw Mirror Glass - Passenger X3 (UKC)* • *E17P Outside Rearview Mirror Glass - Passenger X4 (DL3)*
E18	Rear Defogger Grid	—	In the passenger compartment, on the inside of the liftgate window	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	• *E18 Rear Defogger Grid X1* • *E18 Rear Defogger Grid X2*
E28	Center Console Compartment Lamp	D07 without DCK	In the passenger compartment, inside the center console compartment	• *Center Console Internal Component Views (X88/Z88)* • *Center Console Top Component Views (Z75)*	*E28 Center Console Compartment Lamp (D07 without DCK)*
E29LF	Fog Lamp – Left Front	T3U	At the left front corner of the vehicle, in the front bumper	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)*	*E29LF Fog Lamp - Left Front (T3U)*
E29RF	Fog Lamp – Right Front	T3U	At the right front corner of the vehicle, in the front bumper	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)*	*E29RF Fog Lamp - Right Front (T3U)*
E29LR	Fog Lamp – Left Rear	T79	At the left rear corner of the vehicle, in the rear fascia	—	• *E29LR Fog Lamp - Left Rear (X88 with T79)* • *E29LR Fog Lamp - Left Rear (Z75 with T79)*
E29RR	Fog Lamp – Right Rear	T79	At the right rear corner of the vehicle, in the rear fascia	—	• *E29RR Fog Lamp - Right Rear (X88 with T79)* • *E29RR Fog Lamp - Right Rear (Z75 with T79)*
E31L	Sunshade Mirror Lamp – Left	—	In the passenger compartment, on the left sunshade	*Overhead Console Components*	*E31L Sunshade Mirror Lamp - Left*
E31R	Sunshade Mirror Lamp – Right	—	In the passenger compartment, on the right sunshade	*Overhead Console Components*	*E31R Sunshade Mirror Lamp - Right*
E32	Cigarette Lighter Receptacle	DT4 with AZ3	In the passenger compartment, center of instrument panel, below P17 Info Display	—	*E32 Cigarette Lighter Receptacle (DT4 with AZ3)*

E32	Cigarette Lighter Receptacle	DT4 with D07	In the passenger compartment, on top of the floor console, below P17 Info Display	—	*E32 Cigarette Lighter Receptacle (DT4 with D07)*
E35L	Exterior Spot Lamp – Left	7X6 or 7X7	In the passenger compartment, forward, top left corner of the instrument panel near the A-Pillar	*Back of Instrument Panel Components (X88/Z88 without D07)*	*E35L Exterior Spot Lamp - Left (7X6 or 7X7)*
E35R	Exterior Spot Lamp – Right	7X7	In the passenger compartment, forward, top right corner of the instrument panel near the A-Pillar	*Back of Instrument Panel Components (X88/Z88 without D07)*	*E35R Exterior Spot Lamp - Right (7X7)*
E36AH	Dome Lamp	without SWB	In the rear compartment, near center, overhead, in the headliner	—	*E36AH Dome Lamp (without SWB)*
E37B	Dome/Reading Lamps – 2nd Row	without U42	In the passenger compartment, overhead, in the headliner between the front and second row seating	*Headliner Components*	*E37B Dome/Reading Lamps - 2nd Row (without U42)*
E37B	Dome/Reading Lamps – 2nd Row	U42	In the passenger compartment, overhead, in the headliner between the front and second row seating, part of the second row video display	*Headliner Components*	—
E37C	Dome/Reading Lamps – 3rd Row	without DNU	In the passenger compartment, overhead, in the headliner behind the second row seating	*Headliner Components*	*E37C Dome/Reading Lamps - 3rd Row (without DNU)*
E37C	Dome/Reading Lamps – 3rd Row	DNU	In the passenger compartment, overhead, in the headliner behind the second row seating, part of the third row video display	*Headliner Components*	—
E37EL	Dome/Reading Lamps – Front Overhead Console Left	—	In the passenger compartment, at the left front of the headliner, in the overhead console	*Overhead Console Components*	*E37EL Dome/Reading Lamps - Front Overhead Console Left*
E37ER	Dome/Reading Lamps – Front Overhead Console Right	—	In the passenger compartment, at the right front of the headliner, in the overhead console	*Overhead Console Components*	*E37ER Dome/Reading Lamps - Front Overhead Console Right*
E37H	Dome/Reading Lamps – Left Roof Rail	U42	In the passenger compartment, overhead, in the video display between the front and second row seating	*Headliner Components*	*E37H Dome/Reading Lamps - Left Roof Rail (U42)*
E37J	Dome/Reading Lamps – Right Roof Rail	U42	In the passenger compartment, overhead, in the video display between the front and second row seating	*Headliner Components*	*E37J Dome/Reading Lamps - Right Roof Rail (U42)*
E38	Flood Lamp - Center Console	—	In the passenger compartment, overhead, forward of center, on the overhead console	*Overhead Console Components*	*E38 Flood Lamp - Center Console*
E42L	Tail Lamp Assembly – Left	—	Outside of the vehicle, at the left rear corner of the vehicle	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*E42L Tail Lamp Assembly - Left (Z88)*
E42R	Tail Lamp Assembly – Right	—	Outside of the vehicle, at the right rear corner of the vehicle	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*E42R Tail Lamp Assembly - Right (Z88)*
E55LR	Flood Lamp – Left Rear Door Pocket	Z75	In the passenger compartment, rear of center, left side, in the left rear door trim, inside the arm rest	*Left Rear Door Components (Z75)*	*E55LR Flood Lamp - Left Rear Door Pocket (Z75)*
E55RR	Flood Lamp – Right Rear Door Pocket	Z75	In the passenger compartment, rear of center, right side, in the right rear door trim, inside the arm rest	*Right Rear Door Components (Z75)*	*E55RR Flood Lamp - Right Rear Door Pocket (Z75)*

E63D	Flood Lamp – Driver Door Handle	Z75	In the passenger compartment, forward of center, left side, in the driver door trim, inside the door handle pocket	*Driver Door Components (Z75)*	*E63D Flood Lamp - Driver Door Handle (Z75)*
E63P	Flood Lamp – Passenger Door Handle	Z75	In the passenger compartment, forward of center, right side, in the passenger door trim, inside the door handle pocket	*Passenger Door Components (Z75)*	*E63P Flood Lamp - Passenger Door Handle (Z75)*
E69L	Multifunction Lamp Assembly – Front Fascia Left	Z75	Outside of the vehicle, front left corner, mounted in the front fascia	*Front of Vehicle Components (Z75)*	—
E69R	Multifunction Lamp Assembly – Front Fascia Right	Z75	Outside of the vehicle, front right corner, mounted in the front fascia	*Front of Vehicle Components (Z75)*	—
F101	Passenger Instrument Panel Air Bag	—	In the passenger compartment, at the top of the passenger side of the instrument panel	● *Front of Instrument Panel Components (X88/Z88 with D07)* ● *Front of Instrument Panel Components (X88/Z88 without D07)* ● *Front of Instrument Panel Components (Z75)*	● *F101 Passenger Instrument Panel Air Bag X1* ● *F101 Passenger Instrument Panel Air Bag X2*
F105L	Roof Rail Air Bag – Left	—	In the passenger compartment, left side, overhead, along the left roof rail	—	*F105L Roof Rail Air Bag - Left*
F105R	Roof Rail Air Bag – Right	—	In the passenger compartment, right side, overhead, along the right roof rail	—	*F105R Roof Rail Air Bag - Right*
F106D	Seat Side Air Bag – Driver	—	In the passenger compartment, on the left side of the left front seat back	*Driver Seat Back Components*	*F106D Seat Side Air Bag - Driver*
F106DA	Seat Side Air Bag – Driver Inboard	AYQ	In the passenger compartment, on the right side of the left front seat back	*Driver Seat Back Components*	*F106DA Seat Side Air Bag - Driver Inboard (AYQ)*
F106P	Seat Side Air Bag – Passenger	—	In the passenger compartment, on the right side of the right front seat back	*Passenger Seat Components View*	*F106P Seat Side Air Bag - Passenger*
F107	Steering Wheel Air Bag	—	In the passenger compartment, in the center of the steering wheel	—	● *F107 Steering Wheel Air Bag X1* ● *F107 Steering Wheel Air Bag X2*
F112D	Seat Belt Retractor Pretensioner – Driver	—	In the passenger compartment, left side, at the base of the B-pillar	—	*F112D Seat Belt Retractor Pretensioner - Driver*
F112P	Seat Belt Retractor Pretensioner – Passenger	—	In the passenger compartment, right side, at the base of the B-pillar	—	● *F112P Seat Belt Retractor Pretensioner - Passenger X1* ● *F112P Seat Belt Retractor Pretensioner - Passenger X2*
F113D	Seat Belt Anchor Pretensioner – Driver	—	In the passenger compartment, on the lower outside of the driver seat, mounted to the seat track	● *Driver Seat Cushion Components (without ULT)* ● *Driver Seat Cushion Components (ULT)*	*F113D Seat Belt Anchor Pretensioner - Driver*
F113P	Seat Belt Anchor Pretensioner – Passenger	—	In the passenger compartment, on the lower outside of the passenger seat, mounted to the seat track	*Passenger Seat Cushion Components (without ULT)*	*F113P Seat Belt Anchor Pretensioner - Passenger*
G1	A/C Compressor	—	In the engine compartment, right side, mounted on the lower front of the engine	*Left Side of Engine Components (L83 or L86)*	—

G3	Air Suspension Compressor	Z85 or Z95	under the vehicle, at the left rear, behind left rear tire	—	*G3 Air Suspension Compressor (Z85 or Z95)*
G10L	Cooling Fan Motor – Left	—	At the front of the engine compartment, in the center of the left fan assembly	*Cooling Fans*	*G10L Cooling Fan Motor - Left*
G10R	Cooling Fan Motor – Right	—	At the front of the engine compartment, in the center of the right fan assembly	*Cooling Fans*	*G10R Cooling Fan Motor - Right*
G12	Fuel Pump	—	Under the vehicle, in the fuel tank, part of the fuel pump and level sensor assembly	—	—
G12B	Fuel Pump — Secondary	L96	Under the vehicle, in the secondary fuel tank, part of the fuel pump and level sensor assembly	—	—
G13	Generator	L83 or L86	In the engine compartment, right of center, at the top right front of the engine	*Left Side of Engine Components (L83 or L86)*	• *G13 Generator X1* • *G13 Generator X2*
G13	Generator	L96	In the engine compartment, left of center, at the top left front of the engine	*Left Rear Side of Engine Components (L96)*	—
G18	High Pressure Fuel Pump	L83 or L86	In the engine compartment, rearward of center, at the top back center of the engine, underneath the intake manifold	*Top of Engine Components (L83 or L86)*	*G18 High Pressure Fuel Pump*
G19	Rear Window Washer Pump	—	In the engine compartment, left side, forward of the wheel well, behind the driver side head lamp assembly	*Left Front Corner of Vehicle Components*	*G19 Rear Window Washer Pump*
G24	Windshield Washer Pump	—	In the engine compartment, left side, forward of the wheel well, attached to the washer fluid reservoir, below the left headlamp assembly	*Left Front Corner of Vehicle Components*	*G24 Windshield Washer Pump*
G31D	Seat Lumbar/Bolster Pump — Driver	ULT	In the passenger compartment, inside driver seat cushion	*Driver Seat Cushion Components (ULT)*	*G31D Seat Lumbar/Bolster Pump - Driver (ULT)*
G31P	Seat Lumbar/Bolster Pump — Passenger	ULT	In the passenger compartment, inside passenger seat cushion	*Passenger Seat Cushion Components (ULT)*	*G31P Seat Lumbar/Bolster Pump - Passenger (ULT)*
K4	Assist Step Control Module	BRS	Underneath the vehicle, along the outside of the left frame rail, near the the driver door	*Chassis Components View*	• *K4 Assist Step Control Module X1 (BRS)* • *K4 Assist Step Control Module X2 (BRS)*
K8A	Blower Motor Control Module – Auxiliary	—	In the rear compartment, right side, behind the rear quarter interior trim	—	• *K8A Blower Motor Control Module - Auxiliary X1* • *K8A Blower Motor Control Module - Auxiliary X2*
K9	Body Control Module	—	In the passenger compartment, at the lower left side of the instrument panel	*Left Front of Passenger Compartment Views (Z75)*	• *K9 Body Control Module X1* • *K9 Body Control Module X2* • *K9 Body Control Module X3* • *K9 Body Control Module X4* • *K9 Body Control Module X5* • *K9 Body Control Module X6* • *K9 Body Control Module X7*

K13	DVD Control Module	AYE	In the passenger compartment, in the floor console, left side under the instrument panel	—	• *K13 DVD Control Module X1 (AYE)* • *K13 DVD Control Module X2 (AYE)* • *K13 DVD Control Module X3 (AYE)* • *K13 DVD Control Module X4 (AYE)* • *K13 DVD Control Module X5 (AYE)* • *K13 DVD Control Module X6 (AYE)*
K14	Distance Sensing Cruise Control Module	K59	Front of vehicle, left side bottom, behind the front fascia, on the frame rail, near ground G101	*Behind Front Fascia Components (X88/Z88)*	*K14 Distance Sensing Cruise Control Module (K59)*
K17	Electronic Brake Control Module	—	Underneath the vehicle, left side, along the inside of the frame rail, near the left side of the transmission	*Chassis Components View*	*K17 Electronic Brake Control Module*
K19	Suspension Control Module	Z95	Underneath the vehicle, at the back, left of center, top side of the rear most chassis cross member, above spare tire	*Chassis Components View*	*K19 Suspension Control Module (Z95)*
K20	Engine Control Module	—	In the engine compartment, to the left of the engine	*Left Side of Engine Compartment Component View*	• *K20 Engine Control Module X1* • *K20 Engine Control Module X2* • *K20 Engine Control Module X3*
K29	Seat Heating Control Module	KA1	In the passenger compartment, forward of center, right side, under the passenger seat cushion	*Passenger Seat Cushion Components (without ULT)*	• *K29 Seat Heating Control Module X1 (KA1)* • *K29 Seat Heating Control Module X2 (KA1)*
K29R	Seat Heating Control Module – Rear	KA6	In the passenger compartment, rear of center, left side, under the second row seat cushion	• *2nd Row Left Bucket Seat Components (ATN)* • *2nd Row Bench Seat Cushions Bottom Components (ATT)*	• *K29R Seat Heating Control Module - Rear X1 (KA6)* • *K29R Seat Heating Control Module - Rear X2 (KA6)*
K32	Steering Wheel Heating Control Module	UVD	In the passenger compartment, on lower center of the steering wheel assembly behind the steering wheel air bag	—	*K32 Steering Wheel Heating Control Module X1 (UVD with Z75)*
K33	HVAC Control Module	—	In the passenger compartment, in the passenger side of the Instrument Panel, behind the glove box, mounted to the top of the HVAC assembly	*Front of HVAC Assembly Components*	• *K33 HVAC Control Module X1* • *K33 HVAC Control Module X2* • *K33 HVAC Control Module X3* • *K33 HVAC Control Module X4*
K36	Inflatable Restraint Sensing and Diagnostic Module	—	In the passenger compartment, under the center console, on the floor	*Left Front of Passenger Compartment Views (Z75)*	• *K36 Inflatable Restraint Sensing and Diagnostic Module X1* • *K36 Inflatable Restraint Sensing and Diagnostic Module X2*
K38	Chassis Control Module	JL1 or Z85	Under the vehicle, at the rear, right side, mounted to the bracket above the spare tire	*Chassis Components View*	• *K38 Chassis Control Module (Z75)* • *K38 Chassis Control Module (JL1 or Z85)*

K39	Liftgate Control Module	TB5 or TC2	In the rear compartment, left side of the tailgate, behind the trim.	*Liftgate Components*	• *K39 Liftgate Control Module X1 (TB5 or TC2)* • *K39 Liftgate Control Module X2 (TB5 or TC2)* • *K39 Liftgate Control Module X3 (TB5 or TC2)*
K40D	Seat Memory Control Module – Driver	A45 or ULT	In the passenger compartment, left side, under the driver seat cushion	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	• *K40D Seat Memory Control Module - Driver X1 (A45 or ULT)* • *K40D Seat Memory Control Module - Driver X2 (A45 or ULT)* • *K40D Seat Memory Control Module - Driver X3 (A45 or ULT)* • *K40D Seat Memory Control Module - Driver X4 (JF4 with A45 or ULT)* • *K40D Seat Memory Control Module - Driver X5 (A45 or ULT)* • *K40D Seat Memory Control Module - Driver X6 (A45 or ULT)*
K40P	Seat Memory Control Module – Passenger	AG2 or ULT	In the passenger compartment, right side, under the passenger seat cushion	*Passenger Seat Cushion Components (ULT)*	• *K40P Seat Memory Control Module - Passenger X1 (AG2 or ULT)* • *K40P Seat Memory Control Module - Passenger X2 (AG2 or ULT)* • *K40P Seat Memory Control Module - Passenger X3 (AG2 or ULT)*
K43	Power Steering Control Module	—	Underneath the vehicle, towards the front, on the power steering rack assembly	—	• *K43 Power Steering Control Module X1* • *K43 Power Steering Control Module X2* • *K43 Power Steering Control Module X3*
K53D	Seat Blower Assembly – Driver Back	KB6	In the passenger compartment, forward of center, left side, inside the driver seat back	*Driver Seat Back Components*	*K53D Seat Blower Assembly - Driver Back (KB6)*
K53P	Seat Blower Assembly – Passenger Back	KB6	In the passenger compartment, forward of center, right side, inside the passenger seat back	*Passenger Seat Components View*	*K53P Seat Blower Assembly - Passenger Back (KB6)*
K55D	Seat Blower Assembly – Driver Cushion	KB6	In the passenger compartment, forward of center, left side, inside the driver seat cushion	*Driver Seat Cushion Components (without ULT)*	*K55D Seat Blower Assembly - Driver Cushion (KB6)*
K55P	Seat Blower Assembly – Passenger Cushion	KB6	In the passenger compartment, forward of center, right side, inside the passenger seat cushion	• *Passenger Seat Cushion Components (without ULT)* • *Passenger Seat Cushion Components (ULT)*	*K55P Seat Blower Assembly - Passenger Cushion (KB6)*
K60	Steering Column Lock Module	BTM	In the passenger compartment, on steering column, at shift lever	*Steering Column Components (2 of 2)*	*K60 Steering Column Lock Module (BTM)*

K69	Transfer Case Control Module	NP0 or NQH	In the passenger compartment, under the instrument panel, right of the accelerator pedal	*Behind Left Side of Instrument Panel Components (1 of 2)*	• *K69 Transfer Case Control Module X1 (NP0 or NQH)* • *K69 Transfer Case Control Module X2 (NP0 or NQH)* • *K69 Transfer Case Control Module X3 (NP0 or NQH)*
K71	Transmission Control Module	MYC or MYD	In the engine compartment, inside the transmission assembly, part of the control solenoid valve	—	—
K71	Transmission Control Module	M5U	In the engine compartment, left side of bulkhead, near the brake master cylinder	*Left Side of Engine Compartment Component View*	*K71 Transmission Control Module (M5U)*
K73	Telematics Communication Interface Control Module	UE1	In the passenger compartment, inside instrument panel, right side, above glove box	*Back of Instrument Panel Components (Z75)*	• *K73 Telematics Communication Interface Control Module X1 (UE1)* • *K73 Telematics Communication Interface Control Module X2 (UE1)* • *K73 Telematics Communication Interface Control Module X5 (UE1 with CV3 or VV4)* • *K73 Telematics Communication Interface Control Module X7 (UE1 with CV3)* • *K73 Telematics Communication Interface Control Module X7 (UE1 with VV4 without CV3)*
K74	Human Machine Interface Control Module	IO5 or IO6	In the passenger compartment, right side of the instrument panel, below the passenger air bag	• *Back of Instrument Panel Components (X88/Z88 with D07)* • *Back of Instrument Panel Components (X88/Z88 without D07)* • *Back of Instrument Panel Components (Z75)*	• *K74 Human Machine Interface Control Module X1 (IO5 or IO6)* • *K74 Human Machine Interface Control Module X2 (IO5 or IO6)* • *K74 Human Machine Interface Control Module X3 (IO5 or IO6)* • *K74 Human Machine Interface Control Module X4 (IO5 or IO6)* • *K74 Human Machine Interface Control Module X5 (IO5 or IO6)* • *K74 Human Machine Interface Control Module X7 (IO6)*
K77	Remote Control Door Lock Receiver	—	In the passenger compartment, right rear, on C-pillar	—	• *K77 Remote Control Door Lock Receiver X1* • *K77 Remote Control Door Lock Receiver X2*
K83	Parking Brake Control Module	J71	Underneath the vehicle, at the rear, near center of the rear bumper bar	*Chassis Components View*	*K83 Parking Brake Control Module (J71)*
K84	Keyless Entry Control Module	ATH or BTM	In the rear compartment, left side, underneath rear quarter window behind trim	*Left Rear Cargo Area Components*	• *K84 Keyless Entry Control Module X1 (ATH or BTM)* • *K84 Keyless Entry Control Module X2 (ATH or BTM)*

K85	Passenger Presence Module	—	In the passenger compartment, under the front of the front passenger seat cushion	• *Passenger Seat Cushion Components (without ULT)* • *Passenger Seat Cushion Components (ULT)*	*K85 Passenger Presence Module*
K89	Immobilizer Control Module	without BTM	In the passenger compartment, on the driver side, near the ignition cylinder	—	*K89 Immobilizer Control Module (without BTM)*
K89	Immobilizer Control Module	BTM	In the passenger compartment, near center, between the driver and passenger seat, inside floor console	*Center Console Bottom Component Views*	*K89 Immobilizer Control Module (BTM)*
K99	Steering Column Position Control Module	N38	In the passenger compartment, forward, left side, mounted to the bottom of the steering column	*Steering Column Components (1 of 2)*	• *K99 Steering Column Position Control Module X1 (N38)* • *K99 Steering Column Position Control Module X2 (N38)* • *K99 Steering Column Position Control Module X3 (N38)* • *K99 Steering Column Position Control Module X4 (N38)*
K101	Trailer Interface Control Module	VQ9	In the rear compartment, rear of vehicle	—	• *K101 Trailer Interface Control Module X1 (VQ9)* • *K101 Trailer Interface Control Module X2 (VQ9)*
K111	Fuel Pump Driver Control Module	—	Underneath the vehicle, rear, mounted to the bracket above the spare tire	*Chassis Components View*	*K111 Fuel Pump Driver Control Module*
K124	Active Safety Control Module	UGN with Z75	In the rear compartment, left side, underneath rear quarter glass window, behind trim	*Left Rear Cargo Area Components*	• *K124 Active Safety Control Module X1 (UGN with Z75)* • *K124 Active Safety Control Module X2 (UGN with Z75)*
K127	Communication Interface Module - WLAN Router	Accessory Router	Inside the vehicle, under the instrument panel, near the driver side hush panel	—	—
K133	Trailer Brake Power Control Module	JL1	Under the vehicle, mounted to the bracket above the spare tire, next to K111	*Chassis Components View*	*K133 Trailer Brake Power Control Module (JL1)*
K134D	Seat Bolster Memory Control Module — Driver	ULT	In the passenger compartment, inside driver seat cushion	*Driver Seat Cushion Components (ULT)*	*K134D Seat Bolster Memory Control Module - Driver (ULT)*
K134P	Seat Bolster Memory Control Module — Passenger	ULT	In the passenger compartment, inside passenger seat cushion	*Passenger Seat Cushion Components (ULT)*	*K134P Seat Bolster Memory Control Module - Passenger (ULT)*
K157	Video Processing Control Module	UVH	In the passenger compartment, front, left side, left of steering column, behind instrument panel, near the BCM	*Left Front of Passenger Compartment Views (Z75)*	• *K157 Video Processing Control Module X1 (UVH)* • *K157 Video Processing Control Module X2 (UVH)*
K166L	Multifunction LED Control Module – Left Headlamp	—	Outside the vehicle, left front corner, attached to the headlamp assembly	*Headlamp Components (Z75)*	—
K166R	Multifunction LED Control Module – Right Headlamp	—	Outside the vehicle, right front corner, attached to the headlamp assembly	*Headlamp Components (Z75)*	—

K167L	Multifunction LED Control Module – Front Fascia Left	Z75	Outside the vehicle, left front corner, inside front fascia, attached to the Multifunction Lamp Assembly	—	—
K167R	Multifunction LED Control Module – Front Fascia Right	Z75	Outside the vehicle, right front corner, inside front fascia, attached to the Multifunction Lamp Assembly	—	—
K169	Folding Seat Control Module — 3rd Row	AS8	In the passenger compartment, in the 3rd row seat, left side, inside seat back in the lower left corner	*3rd Row Seat Back Components (AS8)*	• *K169 Folding Seat Control Module - 3rd Row X1 (AS8)* • *K169 Folding Seat Control Module - 3rd Row X2 (AS8)*
K171	Hands-Free Liftgate Sensor Control Module	TC2	At the rear of the vehicle, center, mounted to the underside of the rear bumper	*Behind Rear Fascia Components*	• *K171 Hands-Free Liftgate Sensor Control Module X1 (TC2)* • *K171 Hands-Free Liftgate Sensor Control Module X2 (TC2)* • *K171 Hands-Free Liftgate Sensor Control Module X3 (TC2)*
K174L	Multifunction LED Control Module — Left Tail Lamp	Z75 or Z88	At the left rear corner of the vehicle, internal to the left tail lamp assembly, attached the tail lamp assembly	*Tail Lamp Components (Z75)*	—
K174R	Multifunction LED Control Module — Right Tail Lamp	Z75 or Z88	At the left rear corner of the vehicle, internal to the right tail lamp assembly, attached the tail lamp assembly	*Tail Lamp Components (Z75)*	—
K175	Center Console Compartment Cooler Control Module	DCK	In the passenger compartment, center, inside center console at the floor	—	*K175 Center Console Compartment Cooler Control Module (DCK)*
K182	Parking Assist Control Module	UD5 or UD7	In the rear compartment, behind the rear seat, left side near the wheel well, behind the rear compartment trim	*Left Rear Cargo Area Components*	• *K41 Front and Rear Parking Assist Control Module X1 (UD5 or UD7)* • *K41 Front and Rear Parking Assist Control Module X2 (UD5 or UD7)* • *K41 Front and Rear Parking Assist Control Module X3 (UD5)*
KR58	Roof Beacon Relay	TRW	In the passenger compartment, overhead, in the overhead console	—	*KR58 Roof Beacon Relay (TRW)*
KR79	Auxiliary Battery Relay 2	5W4 or 9C1	In the engine compartment, left side, near C1B Auxiliary Battery	—	*KR79 Auxiliary Battery Relay 2 (5W4 or 9C1)*
KR81	Auxiliary Battery Relay 1	5W4 or 9C1	In the engine compartment, left side, near C1B Auxiliary Battery	—	• *KR81 Auxiliary Battery Relay 1 X1 (5W4 or 9C1)* • *KR81 Auxiliary Battery Relay 1 X2 (5W4 or 9C1)* • *KR81 Auxiliary Battery Relay 1 X3 (5W4 or 9C1)*
KR98	Vehicle Level Control Compressor Relay	Z85 or Z95	In the engine compartment, left side, under brake master cylinder	—	*KR98 Vehicle Level Control Compressor Relay (Z85 or Z95)*
KR103	DVD Relay	AYE	In the passenger compartment, in the floor console, left side under the instrument panel	—	*KR103 DVD Relay (AYE)*
M4	Air Inlet Door Actuator	—	In the passenger compartment, behind the instrument panel glove box	*Front of HVAC Assembly Components*	*M4 Air Inlet Door Actuator*

M5	Adjustable Pedal Motor	JF4	In the passenger compartment, left side, in the driver footwell, attached to the accelerator pedal assembly	*Behind Left Side of Instrument Panel Components (1 of 2)*	*M5 Adjustable Pedal Motor (JF4)*
M6B	Air Temperature Door Actuator – Auxiliary	—	In the rear compartment, under the right rear quarter window, forward of the rear blower under trim.	—	*M6B Air Temperature Door Actuator - Auxiliary*
M6L	Air Temperature Door Actuator – Left	—	In the passenger compartment, behind the instrument panel, on the HVAC case center	*Front of HVAC Assembly Components*	*M6L Air Temperature Door Actuator - Left*
M6R	Air Temperature Door Actuator – Right	—	In the passenger compartment, behind the instrument panel, on the HVAC case	*Back of HVAC Assembly Components*	*M6R Air Temperature Door Actuator - Right*
M7	Transmission Shift Lock Control Solenoid Actuator	—	In the passenger compartment, right side of the steering wheel, attached to transmission shift lever	*Steering Column Components (2 of 2)*	*M7 Transmission Shift Lock Control Solenoid Actuator*
M8	Blower Motor	—	In the passenger compartment, behind the passenger side of the instrument panel	—	*M8 Blower Motor*
M8B	Blower Motor — Auxiliary	—	In the rear compartment, right side, behind the interior rear quarter trim	—	• *M8B Blower Motor Auxiliary (without SWB)* • *M8B Blower Motor Auxiliary (SWB)*
M26	Front Axle Engagement Actuator	NP0 or NQH	Underside of the vehicle, at the front, center, on front axle	*Front Axle Components*	*M26 Front Axle Engagement Actuator (NP0 or NQH)*
M27	Fuel Door Unlatch Actuator	N08	Underside of the vehicle, near the back, left side, under rear quarter glass window, in rear quarter panel	—	*M27 Fuel Door Unlatch Actuator (N08)*
M31	Liftgate Motor	TB5 or TC2	In the rear compartment, left side of liftgate, on liftgate strut	*Liftgate Components*	*M31 Liftgate Motor (TB5 or TC2)*
M33	Liftgate Window Latch Assembly	—	In the rear compartment, inside the tailgate, at center	*Liftgate Components*	*M33 Liftgate Window Latch Assembly*
M37B	Mode Door Actuator – Auxiliary	—	In the passenger compartment, forward, internal to the instrument panel	—	*M37B Mode Door Actuator - Auxiliary*
M37L	Mode Door Actuator – Left	—	In the passenger compartment, behind the left side of the instrument panel, on the upper left side of the HVAC module	*Front of HVAC Assembly Components*	*M37L Mode Door Actuator - Left*
M38	Power Steering Motor	—	Under the vehicle, part of the steering gear assembly	—	—
M45	Rear Wiper Motor	—	At rear of vehicle, in the liftgate	*Liftgate Components*	*M45 Rear Wiper Motor*
M50D	Seat Front Vertical Motor – Driver	—	In the passenger compartment, under the front of the driver seat, next to the right seat track	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*M50D Seat Front Vertical Motor - Driver*
M50P	Seat Front Vertical Motor – Passenger	—	In the passenger compartment, under the front of the passenger seat, next to the right seat track	*Passenger Seat Cushion Components (without ULT)*	*M50P Seat Front Vertical Motor - Passenger*
M51D	Seat Horizontal Motor – Driver	—	In the passenger compartment, under the center of the driver seat, between the seat tracks	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*M51D Seat Horizontal Motor - Driver*

M51P	Seat Horizontal Motor – Passenger	—	In the passenger compartment, under the center of the passenger seat, between the seat tracks	• *Passenger Seat Cushion Components (without ULT)* • *Passenger Seat Cushion Components (ULT)*	*M51P Seat Horizontal Motor - Passenger*
M52D	Seat Lumbar Support Horizontal Motor - Driver	without Y91 or Z75	In the passenger compartment, part of the driver seat back	*Driver Seat Back Components*	*M52D Seat Lumbar Support Horizontal Motor - Driver (without Y91 or Z75)*
M52P	Seat Lumbar Support Horizontal Motor - Passenger	without Y91 or Z75	In the passenger compartment, part of the passenger seat back	*Passenger Seat Components View*	*M52P Seat Lumbar Support Horizontal Motor - Passenger (without Y91 or Z75)*
M55D	Seat Rear Vertical Motor – Driver	—	In the passenger compartment, under the front of the driver seat, next to the left seat track	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*M55D Seat Rear Vertical Motor - Driver*
M55P	Seat Rear Vertical Motor – Passenger	—	In the passenger compartment, under the front of the passenger seat, next to the left seat track	• *Passenger Seat Cushion Components (without ULT)* • *Passenger Seat Cushion Components (ULT)*	*M55P Seat Rear Vertical Motor - Passenger*
M56D	Seat Recline Motor – Driver	—	In the passenger compartment, part of the driver seat back	*Driver Seat Back Components*	*M56D Seat Recline Motor - Driver*
M56P	Seat Recline Motor – Passenger	—	In the passenger compartment, part of the passenger seat back	*Passenger Seat Components View*	*M56P Seat Recline Motor - Passenger*
M60A	Active Grille Air Shutter 1 Motor Module	Z75	Outside the vehicle, near the left front corner of the vehicle, behind the fascia	—	*M60A Active Grille Air Shutter 1 Motor Module (Z75)*
M60B	Active Grille Air Shutter 2 Motor Module	Z75	Outside the vehicle, near the right front corner of the vehicle, behind the fascia	—	*M60B Active Grille Air Shutter 2 Motor Module (Z75)*
M64	Starter Motor	—	In the engine compartment, lower right rear of the engine	• *Right Rear Side of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	• *M64 Starter Motor X1* • *M64 Starter Motor X2*
M65	Steering Column Telescope Motor	N38	In the passenger compartment, forward, left of center, on the steering column	—	—
M68	Steering Column Tilt Motor	N38	In the passenger compartment, forward, left of center, on the steering column	—	—
M69	Sunroof Motor	CF5	In the passenger compartment, overhead, in the center of the headliner	—	*M69 Sunroof Motor (CF5)*
M74D	Window Motor – Driver	—	In the passenger compartment, behind the driver door trim panel, at the center of the door	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	*M74D Window Motor - Driver*
M74LR	Window Motor – Left Rear	—	In the passenger compartment, center of the left rear door, behind the door trim panel	• *Left Rear Door Components (X88 or Z88)* • *Left Rear Door Components (Z75)*	*M74LR Window Motor - Left Rear*

M74P	Window Motor – Passenger	—	In the passenger compartment, behind the front passenger door trim panel, at the center of the door	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	*M74P Window Motor - Passenger*
M74RR	Window Motor – Right Rear	—	In the passenger compartment, center of the right rear door, behind the door trim panel	• *Right Rear Door Components (X88 or Z88)* • *Right Rear Door Components (Z75)*	*M74RR Window Motor - Right Rear*
M75	Windshield Wiper Motor	—	At the left rear of the engine compartment, near the windshield	*Left Side of Engine Compartment Component View*	*M75 Windshield Wiper Motor*
M77D	Outside Rearview Mirror Motor – Driver	—	Outside of the vehicle, left side, forward on the driver door, inside the outside rear view mirror	—	• *M77D Outside Rearview Mirror Motor – Driver (without A45)* • *M77D Outside Rearview Mirror Motor – Driver (A45)*
M77P	Outside Rearview Mirror Motor – Passenger	—	Outside of the vehicle, right side, forward on the passenger door, inside the outside rear view mirror	—	• *M77P Outside Rearview Mirror Motor – Passenger (without A45)* • *M77P Outside Rearview Mirror Motor - Passenger (A45)*
M78D	Outside Rearview Mirror Folding Motor – Driver	DL3 or DR4	Outside of the vehicle, left side, forward on the driver door, inside the outside rear view mirror	—	*M78D Outside Rearview Mirror Folding Motor - Driver (DL3 or DR4)*
M78P	Outside Rearview Mirror Folding Motor – Passenger	DL3 or DR4	Outside of the vehicle, right side, forward on the passenger door, inside the outside rear view mirror	—	*M78P Outside Rearview Mirror Folding Motor - Passenger (DL3 or DR4)*
M91	Instrument Panel Compartment Door Unlatch Actuator	Z75	In the passenger compartment, forward, right side, inside the instrument panel on the glove box	—	*M91 Instrument Panel Compartment Door Unlatch Actuator (Z75)*
M95L	Assist Step – Left	BRS	Under the vehicle, along the left frame rail, under the driver door	*Chassis Components View*	*M95L Assist Step - Left (BRS)*
M95R	Assist Step – Right	BRS	Under the vehicle, along the right frame rail, under the passenger door	*Chassis Components View*	*M95R Assist Step - Right (BRS)*
M101L	Seat Belt Retractor Motor Module – Left	AX7	In the passenger compartment, left side, at the base of the B-Pillar, part of the seat belt retractor	*Left Front of Passenger Compartment Views (Z75)*	*M101L Seat Belt Retractor Motor Module - Left (AX7)*
M101R	Seat Belt Retractor Motor Module – Right	AX7	In the passenger compartment, right side, at the base of the B-Pillar, part of the seat belt retractor	—	*M101R Seat Belt Retractor Motor Module - Right (AX7)*
M107LR	Folding Seat Motor — 2nd Row Left	ATN or ATT	In the passenger compartment, left side, under 2nd row seat cushion	• *2nd Row Left Bucket Seat Components (ATN)* • *2nd Row Bench Seat Cushions Bottom Components (ATT)*	*M107LR Folding Seat Motor - 2nd Row Left (ATN or ATT)*
M107RR	Folding Seat Motor — 2nd Row Right	ATN or ATT	In the passenger compartment, right side, under 2nd row seat cushion	• *2nd Row Right Bucket Seat Components (ATN)* • *2nd Row Bench Seat Cushions Bottom Components (ATT)*	*M107RR Folding Seat Motor - 2nd Row Right (ATN or ATT)*
M108LR	Folding Seat Motor — 3rd Row Left	AS8	In the passenger compartment, left side, at the bottom of the 3rd row seat back	*3rd Row Seat Back Components (AS8)*	*M108LR Folding Seat Motor - 3rd Row Left (AS8)*
M108RR	Folding Seat Motor — 3rd Row Right	AS8	In the passenger compartment, right side, at the bottom of the 3rd row seat back	*3rd Row Seat Back Components (AS8)*	*M108RR Folding Seat Motor - 3rd Row Right (AS8)*

M109LR	Folding Seat Back Unlatch Motor — 3rd Row Left	AS8	In the passenger compartment, left side, at the middle of the 3rd row seat back	*3rd Row Seat Back Components (AS8)*	*M109LR Folding Seat Back Unlatch Motor - 3rd Row Left (AS8)*
M109RR	Folding Seat Back Unlatch Motor — 3rd Row Right	AS8	In the passenger compartment, right side, at the middle of the 3rd row seat back	*3rd Row Seat Back Components (AS8)*	*M109RR Folding Seat Back Unlatch Motor - 3rd Row Right (AS8)*
P7	Display	—	In the passenger compartment, forward, center, part of the P17 info display module	—	—
P9	Driver Information Center Display	—	In the passenger compartment, forward, left of center, part of the instrument cluster in the instrument panel	—	—
P12	Horn	—	In the engine compartment, lower left corner of the radiator support	• *Cooling Fans* • *Left Side of Engine Compartment Component View*	*P12 Horn*
P14	Passenger Air Bag Disabled Indicator	—	In the passenger compartment, forward, overhead, in the center of the overhead console	*Overhead Console Components*	*P14 Passenger Air Bag Disabled Indicator*
P16	Instrument Cluster	—	In the passenger compartment, at the top of the driver side of the instrument panel, above the steering column	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)* • *Front of Instrument Panel Components (Z75)*	• *P16 Instrument Cluster X1* • *P16 Instrument Cluster X2 (UV6 without Z75)* • *P16 Instrument Cluster X2 (UV6 with Z75)*
P17	Info Display Module	—	In the passenger compartment, at the top center of the instrument panel, above the radio controls	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)* • *Front of Instrument Panel Components (Z75)*	• *P17 Info Display Module X1 (X88 or Z88)* • *P17 Info Display Module X1 (Z75)* • *P17 Info Display Module X2 (X88 or Z88)* • *P17 Info Display Module X2 (IO6 with Z75)* • *P17 Info Display Module X3 (IO3)* • *P17 Info Display Module X3 (IO5 or IO6 without U42 or Z75)* • *P17 Info Display Module X3 (IO5 or IO6 with U42, without Z75)*
P19AC	Speaker – Subwoofer	UQA, UQH or UQS	In the passenger compartment, forward of center, under the floor console, near the instrument panel	*Front Center of The Passenger Compartment Components*	*P19AC Speaker - Subwoofer (UQA, UQH or UQS)*
P19AG	Speaker – Left Front Door	—	In the passenger compartment, at the front of the left front door, behind the door trim panel	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	• *P19AG Speaker - Left Front Door (without UQH)* • *P19AG Speaker - Left Front Door (UQH)*
P19AH	Speaker – Right Front Door	—	In the passenger compartment, at the front of the right front door, behind the door trim panel	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	• *P19AH Speaker - Right Front Door (without UQH)* • *P19AH Speaker - Right Front Door (UQH)*

P19AL	Speaker – Left Rear Door	—	In the passenger compartment, in the lower left rear door, behind the door panel	• *Left Rear Door Components (X88 or Z88)* • *Left Rear Door Components (Z75)*	*P19AL Speaker - Left Rear Door*
P19AM	Speaker – Right Rear Door	—	In the passenger compartment, in the lower right rear door, behind the door panel	• *Right Rear Door Components (X88 or Z88)* • *Right Rear Door Components (Z75)*	*P19AM Speaker - Right Rear Door*
P19AN	Speaker – Left Rear Trim Panel	UQA, UQH or UQS	In the rear compartment, at the back, left side at the top of the D-Pillar	*Left Rear Cargo Area Components*	*P19AN Speaker - Left Rear Trim Panel (UQA, UQH or UQS)*
P19AP	Speaker – Right Rear Trim Panel	UQA, UQH or UQS	In the rear compartment, at the back, right side at the top of the D-Pillar	*Right Rear Cargo Area Components*	*P19AP Speaker - Right Rear Trim Panel (UQA, UQH or UQS)*
P19B	Speaker – Center Instrument Panel	UQH or UQS	In the passenger compartment, center of the instrument panel	• *Back of Instrument Panel Components (X88/Z88 with D07)* • *Back of Instrument Panel Components (Z75)*	*P19B Speaker - Center Instrument Panel (UQH or UQS)*
P19DD	Speaker – Left Front Door Woofer	UQH	In the passenger compartment, at the front of the left front door, behind the door trim panel	*Driver Door Components (Z75)*	*P19DD Speaker - Left Front Door Woofer (UQH)*
P19HD	Speaker – Left Front Door Tweeter	UQH	In the passenger compartment, at the front of the left front door, behind the door trim panel, at the door mirror	*Driver Door Components (Z75)*	*P19HD Speaker - Left Front Door Tweeter (UQH)*
P19J	Speaker – Left Instrument Panel	—	In the passenger compartment, in the upper left of the instrument panel	• *Front of Instrument Panel Components (X88/Z88 without D07)* • *Back of Instrument Panel Components (Z75)*	• *P19J Speaker - Left Instrument Panel (UQA, UQH or UQS)* • *P19J Speaker - Left Instrument Panel (UQ3)*
P19M	Speaker – Left Rear Tweeter	UQH	In the passenger compartment, in the upper left rear door, behind the door panel, near door handle	*Left Rear Door Components (Z75)*	*P19M Speaker - Left Rear Tweeter (UQH)*
P19PD	Speaker – Right Front Door Woofer	UQH	In the passenger compartment, at the front of the right front door, behind the door trim panel	*Passenger Door Components (Z75)*	*P19PD Speaker - Right Front Door Woofer (UQH)*
P19VD	Speaker – Right Front Door Tweeter	UQH	In the passenger compartment, at the front of the right front door, behind the door trim panel, at the door mirror	*Passenger Door Components (Z75)*	*P19VD Speaker - Right Front Door Tweeter (UQH)*
P19W	Speaker – Right Instrument Panel	—	In the passenger compartment, in the upper right of the instrument panel	• *Front of Instrument Panel Components (X88/Z88 without D07)* • *Back of Instrument Panel Components (Z75)*	• *P19W Speaker - Right Instrument Panel (UQA, UQH or UQS)* • *P19W Speaker - Right Instrument Panel (UQ3)*
P19Z	Speaker – Right Rear Tweeter	UQH	In the passenger compartment, in the upper right rear door, behind the door panel, near door handle	*Right Rear Door Components (Z75)*	*P19Z Speaker - Right Rear Tweeter (UQH)*
P22A	Video Display – 2nd Row	U42	In the passenger compartment, in the headliner between the front and second row seating	*Headliner Components*	• *P22A Video Display - 2nd Row X1 (U42)* • *P22A Video Display - 2nd Row X2 (U42)*
P22B	Video Display – 3rd Row	DNU	In the passenger compartment, in the headliner between the second and third row seating	*Headliner Components*	• *P22B Video Display - 3rd Row X1 (DNU)* • *P22B Video Display - 3rd Row X2 (DNU)*

P25	Power Sounder Content Theft Deterrent Alarm Module	UTT	In the engine compartment, rear, under the air inlet grille, near center	—	*P25 Power Sounder Content Theft Deterrent Alarm Module (UTT)*
P29	Head-Up Display	UV6	In the passenger compartment, forward left, in the instrument panel on the top, forward of the gauge cluster	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)* • *Front of Instrument Panel Components (Z75)*	• *P29 Heads-Up Display X1 (UV6)* • *P29 Heads Up Display X2 (UV6)*
P34D	Side Object Detection Indicator — Driver	UKC	At the front of the Left front door, part of the Outside Rearview Mirror, part of the mirror glass	—	—
P34P	Side Object Detection Indicator — Passenger	UKC	At the front of the Right front door, part of the Outside Rearview Mirror, part of the mirror glass	—	—
P43	Collision Alert Indicators	UEU, UFL or UHX without UV6	In the passenger compartment, behind the upper left of the instrument panel, above the instrument cluster	*Back of Instrument Panel Components (X88/Z88 without D07)*	*P43 Collision Alert Indicators (UEU or UFL without UV6)*
P45LR	Seat Haptic Movement Motor – Driver Left Rear	UEU, UFL UHX, or UGN	In the passenger compartment, part of the driver seat cushion	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*P45LR Seat Haptic Movement Motor - Driver Left Rear (UEU, UFL or UGN)*
P45RR	Seat Haptic Movement Motor – Driver Right Rear	UEU, UFL UHX, or UGN	In the passenger compartment, part of the driver seat cushion	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	*P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU, UFL or UGN)*
Q2	A/C Compressor Clutch	—	In the engine compartment, right of center, on the right front of the engine, at the bottom.	• *Right Rear Side of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*Q2 A/C Compressor Clutch*
Q4	Vehicle Level Control Solenoid Valve	Z85 or Z95	Underside of vehicle, at the rear, part of the air suspension compressor	—	—
Q5	Brake Pressure Modulator	—	In the engine compartment, left rear, part of the Brake Control Module	—	—
Q6	Camshaft Position Actuator Solenoid Valve	—	In the engine compartment, at the front right side of the engine	*Front of Engine Components (L83 or L86)*	*Q6 Camshaft Position Actuator Solenoid Valve*
Q8	Control Solenoid Valve Assembly	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Internal Components (MYC or MYD)*	• *Q8 Control Solenoid Valve Assembly X1 (MYC)* • *Q8 Control Solenoid Valve Assembly X2 (MYC)* • *Q8 Control Solenoid Valve Assembly X3 (MYC)*
Q12	Evaporative Emission Purge Solenoid Valve	L83 or L86	In the engine compartment, forward of center, top and front of the engine just left of the throttle body	*Left Side of Engine Components (L83 or L86)*	*Q12 Evaporative Emission Purge Solenoid Valve*
Q12	Evaporative Emission Purge Solenoid Valve	L96	In the engine compartment, forward of center, top of the engine, on the left, just behind the generator	*Left Rear Side of Engine Components (L96)*	—

Q13	Evaporative Emission Vent Solenoid Valve	—	Underneath the vehicle, just left of center, at the rear of the vehicle, attached to the front facing side of the rear most chassis cross member, above the spare tire	*Chassis Components View*	*Q13 Evaporative Emission Vent Solenoid Valve*
Q17A	Fuel Injector 1	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 1	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*Q17A Fuel Injector 1*
Q17B	Fuel Injector 2	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 2	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*Q17B Fuel Injector 2*
Q17C	Fuel Injector 3	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 3	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*Q17C Fuel Injector 3*
Q17D	Fuel Injector 4	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 4	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*Q17D Fuel Injector 4*
Q17E	Fuel Injector 5	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 5	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*Q17E Fuel Injector 5*
Q17F	Fuel Injector 6	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 6	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*Q17F Fuel Injector 6*
Q17G	Fuel Injector 7	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 7	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*Q17G Fuel Injector 7*
Q17H	Fuel Injector 8	—	In the engine compartment, top of the engine, attached to the fuel rail, above cylinder 8	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*Q17H Fuel Injector 8*
Q27A	Pressure Control Solenoid Valve 1	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—
Q27B	Pressure Control Solenoid Valve 2	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—
Q27C	Pressure Control Solenoid Valve 3	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—

Q27D	Pressure Control Solenoid Valve 4	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—
Q27E	Pressure Control Solenoid Valve 5	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—
Q32A	Shift Solenoid Valve 1	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—
Q32B	Shift Solenoid Valve 2	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—
Q37LF	Shock Absorber Actuator — Left Front	Z95	Outside the vehicle, at the left front corner, near the top of the strut	—	*Q37LF Shock Absorber Actuator - Left Front (Z95)*
Q37LR	Shock Absorber Actuator — Left Rear	Z95	Outside the vehicle, at the left front corner, near the top of the shock	*Chassis Components View*	*Q37LR Shock Absorber Actuator - Left Rear (Z95)*
Q37RF	Shock Absorber Actuator — Right Front	Z95	Outside the vehicle, at the left front corner, near the top of the strut	—	*Q37RF Shock Absorber Actuator - Right Front (Z95)*
Q37RR	Shock Absorber Actuator — Right Rear	Z95	Outside the vehicle, at the left front corner, near the top of the shock	*Chassis Components View*	*Q37RR Shock Absorber Actuator - Right Rear (Z95)*
Q38	Throttle Body	—	In the engine compartment, center, at the top front of the engine	• *Left Side of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*Q38 Throttle Body*
Q39A	Torque Converter Clutch Pressure Control Solenoid Valve	MYC or MYD	Underside of the vehicle, forward of middle, internal to the transmission, part of the control solenoid	—	—
Q43	Valve Lifter Oil Manifold Assembly	L83 or L86	In the engine compartment, mounted in the valve lifter valley below the intake manifold	*Left Side of Engine Components (L83 or L86)*	*Q43 Valve Lifter Oil Manifold Assembly*
Q44	Engine Oil Pressure Control Solenoid Valve	L83 or L86	In the engine compartment, at the front of the engine, right of the cam actuator	*Front of Engine Components (L83 or L86)*	*Q44 Engine Oil Pressure Control Solenoid Valve*
Q46	A/C Compressor Solenoid Valve	—	In the front of the engine compartment, part of the compressor assembly	• *Right Rear Side of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*Q46 A/C Compressor Solenoid Valve*
Q77A	Transmission Control Solenoid Valve 1	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77A Transmission Control Solenoid Valve 1 (M5U)*
Q77B	Transmission Control Solenoid Valve 2	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77B Transmission Control Solenoid Valve 2 (M5U)*
Q77C	Transmission Control Solenoid Valve 3	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77C Transmission Control Solenoid Valve 3 (M5U)*
Q77D	Transmission Control Solenoid Valve 4	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77D Transmission Control Solenoid Valve 4 (M5U)*
Q77E	Transmission Control Solenoid Valve 5	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77E Transmission Control Solenoid Valve 5 (M5U)*

Q77F	Transmission Control Solenoid Valve 6	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77F Transmission Control Solenoid Valve 6 (M5U)*
Q77G	Transmission Control Solenoid Valve 7	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77G Transmission Control Solenoid Valve 7 (M5U)*
Q77H	Transmission Control Solenoid Valve 8	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77H Transmission Control Solenoid Valve 8 (M5U)*
Q77J	Transmission Control Solenoid Valve 9	M5U	Underside of the vehicle, forward of middle, internal to the transmission	*Automatic Transmission Valve Body Components (M5U)*	*Q77J Transmission Control Solenoid Valve 9 (M5U)*
R6A	Terminating Resistor — High Speed Bus	without J71, JL1, Z85 or Z95	Underneath the vehicle, at the rear, along the inside of the right frame rail, forward facing side of the rear most cross member, taped in the harness near the chassis control module	*Chassis Components View*	*R6A Terminating Resistor - High Speed Bus (without J71, JL1, Z85 or Z95)*
S2A	Transmission Manual Shift Switch — Up/Down	KB7	In the passenger compartment, part of the transmission shift lever	*Steering Column Components (1 of 2)*	—
S3	Transmission Shift Lever	—	In the passenger compartment, forward, left of center, on the right side of the steering column	*Steering Column Components (1 of 2)*	*S3 Transmission Shift Lever*
S5	Center Console Compartment Lamp Switch	D07	In the passenger compartment, under the center console compartment lid	*Center Console Top Component Views (Z75)*	*S5 Center Console Compartment Lamp Switch (D07)*
S12	Dome Lamp Switch	—	In the passenger compartment, overhead, forward of center, in the overhead console	*Overhead Console Components*	*S12 Dome Lamp Switch*
S13D	Door Lock Switch – Driver	—	In the passenger compartment, in the driver door handle trim panel	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	• *S13D Door Lock Switch - Driver (X88 or Z88)* • *S13D Door Lock Switch - Driver (Z75)*
S13P	Door Lock Switch – Passenger	—	In the passenger compartment, in the passenger door handle trim panel	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	• *S13P Door Lock Switch - Passenger (X88 or Z88)* • *S13P Door Lock Switch - Passenger (Z75)*
S25	Garage Door Opener	UG1	In the passenger compartment, overhead, forward of center, in the overhead console	*Overhead Console Components*	*S25 Garage Door Opener (UG1)*
S27	Head-Up Display Switch	UV6	In the passenger compartment, left side, on the instrument panel, left of the instrument cluster	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (Z75)*	*S27 Head-Up Display Switch (UV6)*
S30	Headlamp Switch	—	In the passenger compartment, forward, left side, on the instrument panel left of the steering column	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)* • *Front of Instrument Panel Components (Z75)*	*S30 Headlamp Switch*
S31D	Seat Heating and Cooling Switch – Driver	KA1 or KB6, without Z75	In the passenger compartment, forward, on the instrument panel, on driver side of the HVAC controls, in floor console bezel	*Center Console Top Component Views (X88/Z88)*	*S31D Seat Heating and Cooling Switch - Driver (KA1 or KB6, without Z75)*

S31P	Seat Heating and Cooling Switch – Passenger	KA1 or KB6, without Z75	In the passenger compartment, forward, on the instrument panel, on passenger side of the HVAC controls, in floor console bezel	*Center Console Top Component Views (X88/Z88)*	*S31P Seat Heating and Cooling Switch - Passenger (KA1 or KB6, without Z75)*
S33	Horn Switch	—	In the passenger compartment, in the center of the steering wheel, behind the driver side air bag	—	—
S38	Ignition Mode Switch	BTM	In the passenger compartment, forward, left of center, in the instrument panel, right of steering column	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (Z75)*	*S38 Ignition Mode Switch (BTM)*
S39	Ignition Switch	without BTM	In the passenger compartment, forward, behind the steering wheel, on the right side of the steering column	—	*S39 Ignition Switch (without BTM)*
S43	Theft Deterrent Sensor Disable Switch	UTT	In the passenger compartment, overhead, in the overhead console	*Overhead Console Components*	*S43 Theft Deterrent Sensor Disable Switch (UTT)*
S45B	Liftgate Control Switch – Interior	TB5 or TC2	In the passenger compartment, overhead, in the overhead console	*Overhead Console Components*	*S45B Liftgate Control Switch - Interior (TB5 or TC2)*
S46	Liftgate Handle Switch	TB5 or TC2	In the rear compartment, rear, right of center, in the liftgate, at the bottom	*Liftgate Components*	*S46 Liftgate Handle Switch (TB5 or TC2)*
S46B	Liftgate Unlatch Switch	TB4	At the rear of the vehicle, in the liftgate	—	*S46B Liftgate Unlatch Switch (TB4)*
S47D	Seat Memory Switch – Driver	A45	In the passenger compartment, on the driver door panel below the driver door arm rest	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	*S47D Seat Memory Switch - Driver (A45)*
S48A	Multifunction Switch – Instrument Panel	X88 or Z88	In the passenger compartment, left side of the instrument panel, left of steering column	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)*	*S48A Multifunction Switch - Instrument Panel (X88 or Z88)*
S48C	Multifunction Switch 1 – Instrument Panel	Z75	In the passenger compartment, near the center of the instrument panel, left of P17	*Front of Instrument Panel Components (Z75)*	*S48C Multifunction Switch 1 - Instrument Panel (Z75)*
S48D	Multifunction Switch 2 – Instrument Panel	Z75	In the passenger compartment, near the center of the instrument panel, right of P17	*Front of Instrument Panel Components (Z75)*	*S48D Multifunction Switch 2 - Instrument Panel (Z75)*
S51	Telematics Button Assembly	UE1	In the passenger compartment, forward, overhead, part of the rearview mirror at the bottom	*Overhead Console Components*	—
S52	Outside Rearview Mirror Switch	—	In the passenger compartment, forward of center, left side, on the driver door trim panel	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	• *S52 Outside Rearview Mirror Switch (A45 with Z75)* • *S52 Outside Rearview Mirror Switch (A45 without Z75)* • *S52 Outside Rearview Mirror Switch (except A45)*
S63	Roof Beacon Switch	TRW	In the passenger compartment, behind the overhead console	—	*S63 Roof Beacon Switch (TRW)*

S64D	Seat Adjuster Switch – Driver	—	In the passenger compartment, mounted to the outboard side of the driver seat cushion	• *Driver Seat Cushion Components (without ULT)* • *Driver Seat Cushion Components (ULT)*	• *S64D Seat Adjuster Switch - Driver X1 (without A45)* • *S64D Seat Adjuster Switch - Driver X1 (A45)* • *S64D Seat Adjuster Switch - Driver X2 (without A45)* • *S64D Seat Adjuster Switch - Driver X2 (A45)* • *S64D Seat Adjuster Switch - Driver (ULT)*
S64P	Seat Adjuster Switch – Passenger	—	In the passenger compartment, mounted to the outboard side of the passenger seat cushion	*Passenger Seat Cushion Components (without ULT)*	• *S64P Seat Adjuster Switch - Passenger X1 (AG2)* • *S64P Seat Adjuster Switch - Passenger X2 (AG2)* • *S64P Seat Adjuster Switch - Passenger (ULT)*
S70E	Steering Wheel Controls Switch – Radio Presets	X88 or Z88 with UK3	In the passenger compartment, on the left rear side of the steering wheel	*Steering Wheel Components (X88 or Z88)*	*S70E Steering Wheel Controls Switch - Radio Presets (X88 or Z88 with UK3)*
S70F	Steering Wheel Controls Switch – Radio Volume	X88 or Z88 with UK3	In the passenger compartment, on the right rear side of the steering wheel	*Steering Wheel Components (X88 or Z88)*	*S70F Steering Wheel Controls Switch - Radio Volume (X88 or Z88 with UK3)*
S70L	Steering Wheel Controls Switch – Left	—	In the passenger compartment, on the left side of the steering wheel	• *Steering Wheel Components (X88 or Z88)* • *Steering Wheel Components (Z75)*	• *S70L Steering Wheel Controls Switch - Left (X88 or Z88)* • *S70L Steering Wheel Controls Switch - Left (Z75)*
S70R	Steering Wheel Controls Switch – Right	—	In the passenger compartment, on the right side of the steering wheel	• *Steering Wheel Components (X88 or Z88)* • *Steering Wheel Components (Z75)*	• *S70R Steering Wheel Controls Switch - Right (X88 or Z88)* • *S70R Steering Wheel Controls Switch - Right (Z75)*
S71	Steering Column Tilt and Telescope Switch	N38	In the passenger compartment, forward, left side, on the steering column	—	—
S72	Sunroof Switch	CF5	In the passenger compartment, overhead, forward of center, in the overhead console	*Overhead Console Components*	*S72 Sunroof Switch (CF5)*
S74	Tow/Haul Mode Switch	—	In the passenger compartment, part of the transmission shift lever	*Steering Column Components (2 of 2)*	—
S76	Trailer Brake Control Switch	JL1	In the passenger compartment, forward, left side, on instrument panel, left of steering column	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)*	*S76 Trailer Brake Control Switch (JL1)*
S77	Transfer Case Shift Control Switch	NP0 or NQH	In the passenger compartment, left side, on instrument panel, left of steering column	• *Front of Instrument Panel Components (X88/Z88 with D07)* • *Front of Instrument Panel Components (X88/Z88 without D07)* • *Front of Instrument Panel Components (Z75)*	*S77 Transfer Case Shift Control Switch (NP0 or NQH)*

S78	Turn Signal/Multifunction Switch	—	In the passenger compartment, left side, on the left side of the steering column	*Steering Column Components (2 of 2)*	• *S78 Turn Signal Multifunction Switch X1* • *S78 Turn Signal Multifunction Switch X2* • *S78 Turn Signal Multifunction Switch X3*
S79D	Window Switch – Driver	—	In the passenger compartment, behind the driver door trim panel, center of the door	• *Driver Door Components (X88 or Z88)* • *Driver Door Components (Z75)*	*S79D Window Switch - Driver*
S79LR	Window Switch – Left Rear	—	In the passenger compartment, at the center of the left rear door, on the door trim panel	• *Left Rear Door Components (X88 or Z88)* • *Left Rear Door Components (Z75)*	*S79LR Window Switch - Left Rear*
S79P	Window Switch – Passenger	—	In the passenger compartment, on the passenger door trim panel, center of the door	• *Passenger Door Components (X88 or Z88)* • *Passenger Door Components (Z75)*	• *S79P Window Switch - Passenger (A45)* • *S79P Window Switch - Passenger (without A45)*
S79RR	Window Switch – Right Rear	—	In the passenger compartment, on the right rear door trim panel, center of the door	• *Right Rear Door Components (X88 or Z88)* • *Right Rear Door Components (Z75)*	*S79RR Window Switch - Right Rear*
S91	Park Brake Control Switch	J71	In the passenger compartment, left side, on the instrument panel knee bolster	*Front of Instrument Panel Components (Z75)*	*S91 Park Brake Control Switch (J71)*
S135	Rollover Protection Disable Switch	C9I	In the passenger compartment, center, in instrument panel	—	*S135 Rollover Protection Disable Switch (9CI)*
S140	Media Disc Eject Switch	Z75	In the passenger compartment, on the face of the instrument panel center stack below the radio/HVAC controls	*Front of Instrument Panel Components (Z75)*	*S140 Media Disc Eject Switch (Z75)*
S141	Liftgate Window Unlatch Switch	—	At the rear of the vehicle, in the liftgate, center, in the top right of the license plate bezel	• *Rear of Vehicle Components (X88)* • *Rear of Vehicle Components (Z88)* • *Rear of Vehicle Components (Cadillac)*	*S141 Liftgate Window Unlatch Switch*
S143L	Folding Seat Control Switch — 2nd Row Left	ATN or ATT	In the passenger compartment, left side, on C-Pillar trim	—	*S143L Folding Seat Control Switch - 2nd Row Left (ATN or ATT)*
S143R	Folding Seat Control Switch — 2nd Row Right	ATN or ATT	In the passenger compartment, right side, on C-Pillar trim	—	*S143R Folding Seat Control Switch - 2nd Row Right (ATN or ATT)*
S144A	Folding Seat Control Switch — Rear Compartment 2nd Row	ATN or ATT	In the rear compartment, right side, in the trim under the quarter window glass	—	*S144A Folding Seat Control Switch - Rear Compartment 2nd Row (ATN or ATT)*
S144B	Folding Seat Control Switch — Rear Compartment 3rd Row	AS8	In the rear compartment, right side, in the trim under the quarter window glass	—	*S144B Folding Seat Control Switch - Rear Compartment 3rd Row (AS8)*
S145	Center Console Compartment Cooler Switch	DCK	In the passenger compartment, forward of center, in floor console between the driver and passenger seat	*Center Console Top Component Views (X88/Z88)*	*S145 Center Console Compartment Cooler Switch (DCK)*

T1	Accessory DC/AC Power Inverter Module	KI4 or KI5	In the passenger compartment, Inside the instrument panel, right side of the steering column	• *Back of Instrument Panel Components (X88/Z88 with D07)* • *Back of Instrument Panel Components (X88/Z88 without D07)* • *Back of Instrument Panel Components (Z75)*	• *T1 Accessory DC/AC Power Inverter Module (KI4)* • *T1 Accessory DC/AC Power Inverter Module (KI5)*
T3	Audio Amplifier	UQA, UQH or UQS	In the rear compartment, behind the left rear quarter trim.	*Left Rear Cargo Area Components*	• *T3 Audio Amplifier X1 (UQA, UQH or UQS)* • *T3 Audio Amplifier X2 (UQA, UQH or UQS)* • *T3 Audio Amplifier X3 (UQA, UQH or UQS)* • *T3 Audio Amplifier X4 (UQA, UQH or UQS)*
T4G	Cellular Phone, Navigation, and Digital Radio Antenna	—	Outside of the vehicle, on the roof, left front, near windshield	• *Front of Vehicle Components (X88)* • *Front of Vehicle Components (Z88)* • *Front of Vehicle Components (Z75)*	• *T4G Cellular Phone, Navigation, and Digital Radio Antenna X1 (IO6 with UE1 without CV3)* • *T4G Cellular Phone, Navigation, and Digital Radio Antenna X3 (IO6 without UE1)* • *T4G Cellular Phone, Navigation, and Digital Radio Antenna X3 (CV3 with UE1)* • *T4G Cellular Phone, Navigation, and Digital Radio Antenna X4 (U2M)* • *T4G Cellular Phone, Navigation, and Digital Radio Antenna X5 (VV4)*
T4M	Radio Antenna	—	In the rear compartment, right side, top of the right rear quarter glass	—	—
T4S	Wireless Communication Antenna — Bluetooth	UPF	In the passenger compartment, center of the instrument panel, behind the radio, attached to the K73 Telematics Communication Interface Control Module	—	—
T4U	Auxiliary Audio Transmitter Antenna	AYE	In the passenger compartment, in the floor console, left side under the instrument panel	—	—
T7L	Headlamp Ballast – Left	T4F	Outside the vehicle, left front corner, inside the headlamp	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	• *T7L Headlamp Ballast - Left X1 (T4F)* • *T7L Headlamp Ballast - Left X2 (T4F)*
T7R	Headlamp Ballast – Right	T4F	Outside the vehicle, right front corner, inside the headlamp	• *Headlamp Components (X88)* • *Headlamp Components (Z88)*	• *T7R Headlamp Ballast - Right X1 (T4F)* • *T7R Headlamp Ballast - Right X2 (T4F)*
T8A	Ignition Coil 1	—	In the engine compartment, at the top front, left side of the engine, near cylinder 1	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*T8A Ignition Coil 1*

T8B	Ignition Coil 2	—	In the engine compartment, at the top front, right side of the engine, near cylinder 2	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*T8B Ignition Coil 2*
T8C	Ignition Coil 3	—	In the engine compartment, at the top forward of middle, left side of the engine, near cylinder 3	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*T8C Ignition Coil 3*
T8D	Ignition Coil 4	—	In the engine compartment, at the top forward of middle, right side of the engine, near cylinder 4	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*T8D Ignition Coil 4*
T8E	Ignition Coil 5	—	In the engine compartment, at the top rear of middle, left side of the engine, near cylinder 5	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*T8E Ignition Coil 5*
T8F	Ignition Coil 6	—	In the engine compartment, at the top rear of middle, right side the engine, near cylinder 6	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*T8F Ignition Coil 6*
T8G	Ignition Coil 7	—	In the engine compartment, at the top rear, left side of the engine, near cylinder 7	• *Top of Engine Components (L83 or L86)* • *Left Rear Side of Engine Components (L96)*	*T8G Ignition Coil 7*
T8H	Ignition Coil 8	—	In the engine compartment, at the top rear, right side of the engine, near cylinder 8	• *Top of Engine Components (L83 or L86)* • *Right Rear Side of Engine Components (L96)*	*T8H Ignition Coil 8*
T10E	Keyless Entry Antenna — Rear Compartment	ATH or BTM	In the passenger compartment, left side, just rearward of the C-pillar, on the floor	—	*T10E Keyless Entry Antenna - Rear Compartment (ATH with BTM)*
T10G	Keyless Entry Antenna — Rear Fascia	ATH or BTM	At the rear of the vehicle, left of center, mounted on the back of the rear fascia, left of center	*Behind Rear Fascia Components*	*T10G Keyless Entry Antenna - Rear Fascia (ATH with BTM)*
T10J	Keyless Entry Antenna — Center Console Front	ATH or BTM	In the passenger compartment, in the instrument panel under the center stack info display	*Front of Instrument Panel Components (X88/Z88 with D07)*	*T10J Keyless Entry Antenna - Center Console Front (ATH with BTM)*
T10K	Keyless Entry Antenna — Center Console Rear	ATH or BTM	In the passenger compartment, at the back of the floor console near the auxiliary HVAC controls	• *Center Console Rear Component Views (X88/Z88)* • *Center Console Top Component Views (Z75)*	*T10K Keyless Entry Antenna - Center Console Rear (ATH with BTM)*
T10M	Keyless Entry Antenna — Driver Door Handle	ATH or BTM	Outside the vehicle, on the driver door, part of the door handle assembly	—	—
T10N	Keyless Entry Antenna — Passenger Door Handle	ATH or BTM	Outside the vehicle, on the passenger door, part of the door handle assembly	—	—

T15	Navigation Antenna Signal Splitter	IO6 with UE1	In the passenger compartment, on top of the instrument panel, under top cover, right of center, near windshield	• *Back of Instrument Panel Components (X88/Z88 without D07)* • *Back of Instrument Panel Components (X88/Z88 with D07)* • *Back of Instrument Panel Components (Z75)*	• *T15 Navigation Antenna Signal Splitter X1 (IO6 with UE1)* • *T15 Navigation Antenna Signal Splitter X2 (IO6 with UE1)* • *T15 Navigation Antenna Signal Splitter X3 (IO6 with UE1)*
T22	Mobile Device Wireless Charger Module	K4C	In the passenger compartment, forward of center, in the floor console bin lid.	• *Center Console Top Component Views (X88/Z88)* • *Center Console Rear Component Views (Z75)*	*T22 Mobile Device Wireless Charger Module (K4C)*
T23	Radio Antenna Amplifier	—	In the rear compartment, right side, above rear quarter glass, behind the headliner	—	• *T23 Radio Antenna Amplifier X1* • *T23 Radio Antenna Amplifier X4*
X50A	Fuse Block – Underhood	—	In the engine compartment, front left rear	*Left Side of Engine Compartment Component View*	Electrical Center Identification Views
X50D	Fuse Block – Battery	—	In the engine compartment, top right, on the battery	*Right Rear of Engine Compartment Components (2 of 2)*	Electrical Center Identification Views
X50E	Fuse Block – Battery Auxiliary	5W4 or 9C1	In the engine compartment, front left, on the auxiliary battery	*Left Side of Engine Compartment Component View*	Electrical Center Identification Views
X51L	Fuse Block – Instrument Panel Left	—	In the passenger compartment, left side of the instrument panel, behind access panel	*Left Front of Passenger Compartment Views (Z75)*	Electrical Center Identification Views
X51R	Fuse Block – Instrument Panel Right	—	In the passenger compartment, right side of the instrument panel, behind access panel	—	Electrical Center Identification Views
X53A	Fuse Block – Rear Body	—	In the rear compartment, left side, behind the access door in the rear compartment trim	—	Electrical Center Identification Views
X55X	Fuse Holder - Video Display	AYE	In the passenger compartment, underside of instrument panel, left side, above the lower instrument panel close out panel	—	Electrical Center Identification Views
X61A	Junction Block – Instrument Panel	—	In the passenger compartment, under the instrument panel, left side footwell	*Behind Left Side of Instrument Panel Components (1 of 2)*	Electrical Center Identification Views
X80D	Accessory Power Receptacle – Center Console Compartment	D07	In the passenger compartment, between the driver and passenger seat, in the center floor console compartment	• *Center Console Internal Component Views (X88/Z88)* • *Center Console Top Component Views (Z75)*	*X80D Accessory Power Receptacle - Center Console Compartment (D07)*
X80D	Accessory Power Receptacle – Center Console Compartment	AZ3	In the passenger compartment, between the driver and passenger seat, in the center seat console compartment	*Center Seat Components (AZ3)*	*X80D Accessory Power Receptacle - Center Console Compartment (AZ3)*
X80E	Accessory Power Receptacle – Center Seat	AZ3	In the passenger compartment, in the front center seat, at the rear of the center seat	*Center Seat Components (AZ3)*	*X80E Accessory Power Receptacle - Center Seat (AZ3)*
X80G	Accessory Power Receptacle – Instrument Panel	D07	In the passenger compartment, on top of the floor console, below the info display on the center stack	• *Center Console Top Component Views (X88/Z88)* • *Center Console Top Component Views (Z75)*	*X80G Accessory Power Receptacle - Instrument Panel (D07)*
X80G	Accessory Power Receptacle – Instrument Panel	AZ3	In the passenger compartment, in the instrument panel below the info display on the center stack	*Front of Instrument Panel Components (X88/Z88 without D07)*	*X80G Accessory Power Receptacle - Instrument Panel (AZ3)*

X80L	Accessory Power Receptacle – Center Console Rear	D07	In the passenger compartment, at the rear of the floor center console	• *Center Console Rear Component Views (X88/Z88)* • *Center Console Rear Component Views (Z75)*	*X80L Accessory Power Receptacle – Instrument Panel (D07)*
X80RL	Accessory Power Receptacle – Rear Compartment Left	—	In the passenger compartment, rear, left side, behind the C-Pillar in the molded in arm rest of the quarter panel trim.	—	*X80RL Accessory Power Receptacle - Rear Compartment Left*
X80RR	Accessory Power Receptacle – Rear Compartment right	—	In the rear compartment, right side, in the molded quarter panel trim, underneath the rear quarter glass	—	*X80RR Accessory Power Receptacle - Rear Compartment Right*
X81	Accessory Power Receptacle – 110V AC	KI4 with AZ3	In the passenger compartment, center of the instrument panel, below the HVAC controls	*Front of Instrument Panel Components (X88/Z88 without D07)*	• *X81 Accessory Power Receptacle - 110V AC X1 (KI4 with AZ3)* • *X81 Accessory Power Receptacle - 110V AC X2 (KI4 with AZ3)*
X81	Accessory Power Receptacle – 110V AC	KI4 with D07	In the passenger compartment, at the rear of the floor center console	• *Center Console Rear Component Views (X88/Z88)* • *Center Console Rear Component Views (Z75)*	• *X81 Accessory Power Receptacle - 110V AC X1 (KI4 with D07)* • *X81 Accessory Power Receptacle - 110V AC X2 (KI4 with D07)*
X81B	Accessory Power Receptacle – 220V AC	KI5 with AZ3	In the passenger compartment, center of the instrument panel, below the HVAC controls	*Front of Instrument Panel Components (X88/Z88 without D07)*	• *X81B Accessory Power Receptacle - 220V AC X1 (KI5 with AZ3)* • *X81B Accessory Power Receptacle - 220V AC X2 (KI5 with AZ3)*
X81B	Accessory Power Receptacle – 220V AC	KI5 with D07	In the passenger compartment, at the rear of the floor center console	• *Center Console Rear Component Views (X88/Z88)* • *Center Console Rear Component Views (Z75)*	• *X81B Accessory Power Receptacle - 220V AC X1 (KI5 with D07)* • *X81B Accessory Power Receptacle - 220V AC X2 (KI5 with D07)*
X82	Audio/Video Input Adapter	U42 with D07	In the passenger compartment, at the rear of the floor center console	• *Center Console Rear Component Views (X88/Z88)* • *Center Console Rear Component Views (Z75)*	• *X82 Audio/Video Input Adapter X1 (U42 with D07)* • *X82 Audio/Video Input Adapter X2 (U42 with D07)*
X83	Auxiliary Audio Input	D07	In the passenger compartment, in the floor center console compartment	• *Center Console Internal Component Views (X88/Z88)* • *Center Console Top Component Views (Z75)*	• *X83 Auxiliary Audio Input X1 (D07)* • *X83 Auxiliary Audio Input X2 (D07)*
X83	Auxiliary Audio Input	AZ3	In the passenger compartment, in the center seat compartment	*Center Seat Components (AZ3)*	• *X83 Auxiliary Audio Input X1 (AZ3)* • *X83 Auxiliary Audio Input X2 (AZ3)*
X84	Data Link Connector	—	In the passenger compartment, left side, at the bottom of the driver side of the instrument panel	*Back of Instrument Panel Components (X88/Z88 with D07)*	*X84 Data Link Connector*

X85	Steering Wheel Air Bag Coil	—	In the passenger compartment, left side, on the steering column, behind the steering wheel	*Steering Column Components (2 of 2)*	• *X85 Steering Wheel Air Bag Coil X1* • *X85 Steering Wheel Air Bag Coil X2 (X88 or Z88)* • *X85 Steering Wheel Air Bag Coil X2 (Z75)* • *X85 Steering Wheel Air Bag Coil X3* • *X85 Steering Wheel Air Bag Coil X4 (UVD)* • *X85 Steering Wheel Air Bag Coil X5 (UVD)*
X88	Trailer Connector	without VQ9	On the vehicle exterior, at the rear of the vehicle, left of the license plate	*Rear of Vehicle Components (X88)*	*X88 Trailer Connector*
X92	USB Receptacle	D07 with IO5 or IO6	In the passenger compartment, at the top of the floor console, below instrument panel center stack	• *Center Console Top Component Views (X88/Z88)* • *Center Console Top Component Views (Z75)*	• *X92 USB Receptacle X1 (D07 with IO5 or IO6)* • *X92 USB Receptacle X2 (D07 with IO5 or IO6)* • *X92 USB Receptacle X3 (D07 with IO5 or IO6)*
X92A	USB Receptacle — Instrument Panel Compartment	IO5 or IO6	In the passenger compartment, forward and center, in the instrument panel, behind the screen of the P17 Info Display	—	*X92A USB Receptacle - Instrument Panel Compartment (IO5 or IO6)*
X100	Front Bumper Harness to Forward Lamp Harness (16 Cavities)	X88 or Z88	At the front of the vehicle, right of center, on top of the core support	*Forward Lamp Harness Routing - Right Engine Compartment*	*X100 Forward Lamp Harness to Front Bumper Harness (X88 or Z88)*
X100	Front Bumper Harness to Forward Lamp Harness (40 Cavities)	Z75	At the front of the vehicle, right of center, on top of the core support	*Forward Lamp Harness Routing - Right Engine Compartment*	*X100 Forward Lamp Harness to Front Bumper Harness (Z75 with AVF)*
X101	Front Bumper Harness to Left Multifunction Lamp Harness (8 Cavities)	Z75	At the front of the vehicle, left side, behind the front bumper	—	*X101 Front Bumper Harness to Left Multifunction Lamp Harness (Z75)*
X104	Front Bumper Harness to Right Multifunction Lamp Harness (8 Cavities)	Z75	At the front of the vehicle, right side, behind the front bumper	—	*X104 Front Bumper Harness to Right Multifunction Lamp Harness (Z75)*
X106	Aero Shutter Harness to Forward Lamp Harness (6 Cavities)	Z75	At the front of the vehicle, at center, behind upper grille at hood latch	—	*X106 Aero Shutter Jumper Harness to Forward Lamp Harness (Z75)*
X110	Forward Lamp Harness to Left Headlamp Harness (8 Cavities)	—	In the engine compartment, at the rear of the left headlamp assembly	*Forward Lamp Harness Routing - Left Engine Compartment*	• *X110 Forward Lamp Harness to Left Headlamp Harness (X88 or Z88)* • *X110 Forward Lamp Harness to Left Headlamp Harness (Z75)*
X111	Front Axle Jumper Harness to Engine Harness (4 Cavities)	NP0 or NQH	In the engine compartment, left front, above the front axle	• *Front Axle Harness Routing* • *Engine Harness Routing - Left Front (L83 or L86)* • *Engine Harness Routing - Left Rear (L96)*	*X111 Front Axle Jumper Harness to Engine Harness (NP0 or NQH)*

X115	Engine Harness to Body Harness (48 Cavities)	—	In the front of the engine compartment, left side, at front of Underhood Fuse Block	• *Body Harness Routing - Engine Compartment Top* • *Engine Harness Routing - Left Front (L83 or L86)* • *Engine Harness Routing - Left Rear (L96)*	*X115 Engine Harness to Body Harness*
X119	Body Harness to Brake Clutch Jumper Harness (16 Cavities)	—	In the passenger compartment, left side of the instrument panel, on IP junction block	*Body Harness Routing - Left Front of Passenger Compartment*	*X119 Body Harness to Brake Clutch Jumper Harness*
X120	Forward Lamp Harness to Right Headlamp Harness (8 Cavities)	—	In the engine compartment, at the rear of the right headlamp assembly	*Forward Lamp Harness Routing - Right Engine Compartment*	• *X120 Forward Lamp Harness to Right Headlamp Harness (X88 or Z88)* • *X120 Forward Lamp Harness to Right Headlamp Harness (Z75)*
X122	Forward Lamp Harness to Forward Lamp Harness (6 Cavities)	6J7	In the engine compartment, towards the front, right side, forward of the right hand wheel well	*Forward Lamp Harness Routing - Right Engine Compartment*	*X122 Forward Lamp Harness to Forward Lamp Harness (6J7)*
X125	Engine Harness to Chassis Harness (20 Cavities)	—	In the engine compartment, on the top left of the frame rail, near the top of the left front shock	• *Chassis Harness Routing* • *Engine Harness Routing - Left Front (L83 or L86)* • *Engine Harness Routing - Left Rear (L96)*	*X125 Engine Harness to Chassis Harness*
X139	Engine Harness to Forward Lamp Harness (8 Cavities)	—	in the engine compartment, left side, near center, inboard of underhood fuse block, below X125	• *Forward Lamp Harness Routing - Left Engine Compartment* • *Engine Harness Routing - Left Front (L83 or L86)*	*X139 Engine Harness to Forward Lamp Harness*
X150	Body Harness to Forward Lamp Harness (23 Cavities)	—	In the engine compartment, above the right front wheel well, between the battery and the inner fender	*Body Harness Routing - Engine Compartment Top*	*X150 Body Harness to Forward Lamp Harness*
X154	Engine Harness to Camshaft Jumper Harness (8 Cavities)	—	In the engine compartment, Front of engine, near power steering pulley	*Engine Harness Routing - Left Front (L83 or L86)*	*X154 Engine Harness to Camshaft Jumper Harness*
X158	Auxiliary Battery Harness to Engine Harness (6 Cavities)	5W4 or 9C1	In the engine compartment, right of center	—	*X158 Battery Harness to Engine Harness (5W4 or 9C1)*
X160	Engine Harness to Odd Fuel Injector Harness (12 Cavities)	L83 or L86	In the engine compartment, rear of the engine near the top center	*Engine Harness Routing - Right Rear (L83 or L86)*	*X160 Engine Harness to Odd Fuel Injector Harness*
X161	Engine Harness to Even Fuel Injector Harness (12 Cavities)	L83 or L86	In the engine compartment, rear of the engine near the top right	*Engine Harness Routing - Right Rear (L83 or L86)*	*X161 Engine Harness to Even Fuel Injector Harness*
X170	Engine Harness to Ignition Coil (Odd) Harness (8 Cavities)	L96	On the engine, near the odd ignition coils	—	—
X171	Engine Harness to Ignition Coil (Even) Harness (8 Cavities)	L96	On the engine, near the even ignition coils	*Engine Harness Routing - Left Rear (L96)*	—
X175	Engine Harness to Transmission Harness (36 Cavities)	M5U	Under the vehicle, forward of center, on the right side of the transmission, forward of the transfer case	*Engine Harness Routing - Right Rear (L83 or L86)*	*X175 Engine Harness to Transmission Harness (M5U)*
X176	Transmission Harness to Transmission Harness (22 Cavities)	M5U	Underside of the vehicle, forward of middle, internal to the transmission	—	*X176 Transmission Harness to Transmission Harness (M5U)*

X177	Transmission Harness to Transmission Harness (6 Cavities)	M5U	Underside of the vehicle, forward of middle, internal to the transmission	—	*X177 Transmission Harness to Transmission Harness (M5U)*
X182	Chassis Harness to Power Steering Jumper Harness (12 Cavities)	—	In the engine compartment, front left side, on the cross rail, on the left frame rail.	*Chassis Harness Routing*	*X182 Chassis Harness to Power Steering Jumper Harness*
X183	Battery Harness to Power Steering Jumper Harness (2 Cavities)	—	In the engine compartment, front, on the cross rail, below the crank shaft pulley	—	*X183 Battery Cable Jumper to Power Steering Jumper Harness*
X185	Chassis Harness to Body Harness (40 Cavities)	—	In the rear of the engine compartment, right rear of the under hood fuse block	*Chassis Harness Routing*	*X185 Chassis Harness to Body Harness*
X195	Body Harness to Underhood Harness (4 Cavities)	5W4 or 9C1	In the engine compartment, right side	—	*X195 Body Harness to Underhood Harness (5W4 or 9C1)*
X201	Steering Column Harness to Instrument Panel Harness (42 Cavities)	—	In the passenger compartment, behind the left side of the instrument panel, above the Body Control Module	*Instrument Panel Harness Routing - Rear of Instrument Panel*	*X201 Steering Column Harness to Instrument Panel Harness*
X203	Headliner Harness to Instrument Panel Harness (12 Cavities)	—	In the passenger compartment, forward, left side, in the top of the instrument panel near the left instrument panel speaker	*Headliner Harness Routing*	*X203 Headliner Harness to Instrument Panel Harness*
X204	Instrument Panel Harness LVDS to Headliner Harness LVDS	U42	In the passenger compartment, forward, left side, in the top of the instrument panel, near the left instrument panel speaker	*Headliner Harness Routing*	• *X204 Instrument Panel Harness LVDS to Headliner Harness LVDS (U42 without DNU)* • *X204 Instrument Panel Harness LVDS to Headliner Harness LVDS (U42 with DNU)*
X205	Instrument Panel Harness to Passenger Air Bag Jumper Harness (4 Cavities)	—	In the passenger compartment, behind the right side of the instrument panel, right side of blower motor HVAC caser	*Instrument Panel Harness Routing - Rear of Instrument Panel*	*X205 Instrument Panel Harness to Passenger Air Bag Jumper Harness*
X212	GPS Antenna Jumper COAX to Instrument Panel Harness COAX (1 Cavity)	CV3 with UE1	In the passenger compartment, forward, right of center, in instrument panel near K73	—	*X212 GPS Antenna Jumper COAX to Instrument Panel Harness COAX (CV3 with UE1)*
X215	HVAC Harness to Instrument Panel Harness (14 Cavities)	—	In the passenger compartment, behind the upper right side of the instrument panel defroster deflector	*Instrument Panel Harness Routing - Rear of Instrument Panel*	*X215 HVAC Harness to Instrument Panel Harness*
X216	Body Harness to HVAC Harness (20 Cavities)	—	In the passenger compartment, behind the lower right side of the instrument panel glove box, on the HVAC case	*Body Harness Routing - Right Front of Passenger Compartment*	*X216 Body Harness to HVAC Harness*
X217	Body Harness to HVAC Harness (2 Cavities)	—	In the passenger compartment, behind the lower right side of the instrument panel glove box, on the HVAC case	*Body Harness Routing - Right Front of Passenger Compartment*	*X217 Body Harness to HVAC Harness*
X221	Instrument Panel COAX to Headliner Harness COAX (1 Cavity)	—	In the passenger compartment, forward, right side, top of instrument panel, under defrost deflector, at the Navigation Antenna Splitter	—	*X221 Instrument Panel COAX to Headliner Harness COAX*
X222	Instrument Panel Harness COAX to A-Pillar Harness COAX (2 Cavities)	UE1	In the passenger compartment, forward, right side, top of instrument panel, below the defrost deflector	*Instrument Panel Harness Routing - Rear of Instrument Panel*	• *X222 Instrument Panel COAX to A-Pillar Harness COAX (IO6 with VV4 or CV3)* • *X222 Instrument Panel COAX to A-Pillar Harness COAX (VV4 or CV3 without IO6)*

X225	Body Harness to Instrument Panel Harness (42 Cavities)	—	In the passenger compartment, forward, right side, below the Instrument panel, in the driver foot well, behind the kick panel	*Body Harness Routing - Left Front of Passenger Compartment*	*X225 Body Harness to Instrument Panel Harness*
X238	Body Harness USB to Instrument Panel Harness USB	AZ3	In the passenger compartment, front, below right side of Instrument Panel, behind kick panel	—	*X238 Body Harness USB to Instrument Panel Harness USB (AZ3)*
X245	Instrument Panel Harness COAX to A-Pillar Harness COAX (1 Cavity)	U2K or U2M	In the passenger compartment, forward, right side, top of instrument panel, below the defrost deflector, at the Navigation Splitter	—	• *X245 Instrument Panel Harness COAX to A-Pillar Harness COAX (U2M with UE1)* • *X245 Instrument Panel Harness COAX to A-Pillar Harness COAX (U2M without UE1)*
X271	Instrument Panel Harness to Instrument Panel Harness (8 Cavities)	WX7	In the front of the passenger compartment, in the instrument panel	*Instrument Panel Harness Routing - Bottom Center*	*X271 Instrument Panel Harness to Instrument Panel Harness (WX7)*
X272	Instrument Panel Harness to Upfitter Jumper (6 Cavities)	6J3 or 6J7	In the passenger compartment, under the center of the instrument panel	*Instrument Panel Harness Routing - Bottom Center*	*X272 Instrument Panel Harness to Upfitter Jumper (6J3 or 6J7)*
X273	Body Harness to Body Harness (1 Cavity)	6J4	In the passenger compartment, under the left side of the instrument panel, near body control module	—	*X273 Body Harness to Body Harness (6J4)*
X275	Instrument Panel Harness to Body Harness (42 Cavities)	—	In the passenger compartment, right side, below the Instrument panel, in the passenger foot well, behind the kick panel	*Instrument Panel Harness Routing - Rear of Instrument Panel*	*X275 Instrument Panel Harness to Body Harness*
X300	Instrument Panel Harness to Floor Console Harness (42 Cavities)	D07	In the passenger compartment, underneath floor console cup holders	*Floor Console Harness Routing - Top (X88 or Z88)*	*X300 Instrument Panel Harness to Floor Console Harness (D07)*
X302	Floor Console Harness USB to Instrument Panel Harness USB	D07	In the passenger compartment, underneath floor console cup holders, next to X300	—	• *X302 Floor Console Harness USB to Instrument Panel Harness USB (D07 without U42)* • *X302 Floor Console Harness USB to Instrument Panel Harness USB (D07 with U42)*
X303	Floor Console Harness USB to Instrument Panel Harness USB	D07	In the passenger compartment, front center, underneath floor console cup holders, next to X300	—	*X303 Instrument Panel Harness USB to Floor Console Harness USB (D07 with U42)*
X304	Body Harness USB to Center Seat Harness USB	AZ3	In the passenger compartment, under the front center seat	—	*X304 Body Harness USB to Center Seat Harness USB (AZ3)*
X305	Instrument Panel Harness to Power Receptacle Jumper Harness (12 Cavities)	KI5	In the passenger compartment, in the instrument panel	—	*X305 Instrument Panel Harness to Power Receptacle Jumper Harness (KI5)*
X306	Instrument Panel Harness to Floor Console Harness (6 Cavities)	KI4 or KI5 with D07	In the passenger compartment, center, underneath floor console cup holders, next to X300	*Instrument Panel Harness Routing - Bottom Center*	*X306 Instrument Panel Harness to Floor Console Harness (KI4 or KI5, with D07)*
X307	Floor Console Harness to Floor Console Harness (14 Cavities)	X88 or Z88 with D07	In the passenger compartment, center, underneath the floor console cup holders, next to X300	*Floor Console Harness Routing - Top (X88 or Z88)*	*X307 Floor Console Harness to Floor Console Harness (X88 or Z88 with D07)*
X308	Body Harness to 2nd Row Seat Jumper Harness (8 Cavities)	ATN, ATT or KA6	In the passenger compartment, left side, under second row seat cushion	*Second Row Seat Harness Routing*	*X308 Body Harness to 2nd Row Seat Jumper Harness (ATN, ATT or KA6)*

X310	Driver Seat Harness to Body Harness (48 Cavities)	—	In the passenger compartment, left side, under the driver seat	*Body Harness Routing - Left Front of Passenger Compartment*	*X310 Driver Seat Harness to Body Harness*
X311	Driver Seat Back Harness to Driver Seat Cushion Harness (6 Cavities)	without ULT	In the passenger compartment, inside the driver seat, under the cushion	*Driver Seat Harness Routing*	*X311 Driver Seat Back Harness to Driver Seat Cushion Harness (without ULT)*
X312	Driver Seat Back Harness to Driver Seat Cushion Harness (16 Cavities)	without ULT	In the passenger compartment, inside the driver seat, under the cushion	*Driver Seat Harness Routing*	*X312 Driver Seat Back Harness to Driver Seat Cushion Harness (without ULT)*
X312	Driver Seat Back Harness to Driver Seat Cushion Harness (14 Cavities)	ULT	In the passenger compartment, inside the driver seat, under the cushion	*Driver Seat Harness Routing*	*X312 Driver Seat Back Harness to Driver Seat Cushion Harness (ULT)*
X313	Power Mat Jumper Harness to Floor Console Harness (3 Cavities)	DCK	In the passenger compartment, forward of center, in the floor console	*Floor Console Harness Routing - Bottom Front (Z75)*	*X313 Power Mat Jumper Harness to Floor Console Harness (DCK)*
X315	Headliner Harness to Body Harness (16 Cavities)	NKC, UGN or UTT	In the passenger compartment, forward, left side, behind left instrument panel access panel, near left instrument panel fuse block	*Headliner Harness Routing*	*X315 Headliner Harness to Body Harness (NKC, UGN, UTU or UTV)*
X316	Headliner Harness to Overhead Console Harness (26 Cavities)	—	In the passenger compartment, in the headliner, above the over head console	*Headliner Harness Routing*	*X316 Headliner Harness to Overhead Console Harness*
X318	Rain Sensor Jumper Harness to A-Pillar Harness (3 Cavities)	—	In the passenger compartment, overhead, behind the inside rear view mirror	*A-Pillar Harness Routing - Right Passenger Compartment*	*X318 Rain Sensor Jumper Harness to A-Pillar Harness*
X319	A-Pillar Harness to Sunroof Harness (2 Cavities)	CF5 or TRW	In the passenger compartment, above the overhead console	*Overhead Console Harness Routing*	*X319 A-Pillar Harness to Sunroof Harness (CF5 or TRW)*
X320	Passenger Seat Harness to Body Harness (48 Cavities)	—	In the passenger compartment, right side, under the passenger seat	*Body Harness Routing - Right Front of Passenger Compartment*	*X320 Passenger Seat Harness to Body Harness*
X321	Passenger Seat Back Harness to Passenger Seat Cushion Harness (6 Cavities)	without ULT	In the passenger compartment, inside the passenger seat, under the cushion	—	*X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness (without ULT)*
X322	Passenger Seat Back Harness to Passenger Seat Cushion Harness (6 Cavities)	without ULT	In the passenger compartment, inside the passenger seat, under the cushion	—	*X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (without ULT)*
X322	Passenger Seat Back Harness to Passenger Seat Cushion Harness (10 Cavities)	ULT	In the passenger compartment, inside the passenger seat, under the cushion	—	*X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (ULT)*
X324	Sunroof Harness to Overhead Console Harness (10 Cavities)	CF5	In the passenger compartment, front of center, overhead, in the overhead console	*Overhead Console Harness Routing*	*X324 Sunroof Jumper Harness to Overhead Console Harness (CF5)*
X338	Body Harness to 3rd Row Seat Left Harness (6 Cavities)	AS8	In the passenger compartment left side, under the third row seat cushion, at the left seat frame to floor mount	*Third Row Seat Harness Routing*	*X338 Body Harness to 3rd Row Seat Left Harness (AS8)*
X340	3rd Row Seat Right Harness to 3rd Row Seat Left Harness (6 Cavities)	AS8	In the passenger compartment, at the rear, inside the 3rd row seat, on seat frame between left and right seats	*Third Row Seat Harness Routing*	*X340 3rd Row Seat Right Harness to 3rd Row Seat Left Harness (AS8)*
X348	Center Seat Harness to Body Harness (16 Cavities)	AZ3	In the passenger compartment, forward of center, under the center seat	—	*X348 Center Seat Harness to Body Harness (AZ3 with AVF)*
X371	Accessory Signal Harness 1A to Accessory Signal Harness 3A (6 Cavities)	AYE	In the passenger compartment, Bottom of driver seat, right side, where the seat back meets the seat cushion	—	*X371 Accessory Signal Harness 1A to Accessory Signal Harness 3A (AYE)*

X372	Accessory Signal Harness 2B to Accessory Signal Harness 3B (6 Cavities)	AYE	In the passenger compartment, Bottom of passenger seat, right side, where the seat back meets the seat cushion	—	*X372 Accessory Signal Harness 2B to Accessory Signal Harness 3B (AYE)*
X373	Accessory Signal Harness 2A to Accessory Signal Harness 3A (6 Cavities)	AYE	In the passenger compartment, Bottom of driver seat, right side, where the seat back meets the seat cushion	—	*X373 Accessory Signal Harness 2A to Accessory Signal Harness 3A (AYE)*
X374	Accessory Signal Harness 1B to Accessory Signal Harness 3B (6Cavities)	AYE	In the passenger compartment, Bottom of passenger seat, right side, where the seat back meets the seat cushion	—	*X374 Accessory Signal Harness 1B to Accessory Signal Harness 3B (AYE)*
X378	Body Harness to 2nd Row Seat Jumper Harness (8 Cavities)	ATN or ATT	In the passenger compartment, near center, right side, underneath second row seat, under carpet	*Second Row Seat Harness Routing*	*X378 Body Harness to 2nd Row Seat Jumper Harness (ATN or ATT)*
X379	Body Harness to 2nd Row Seat Jumper Harness (2 Cavities)	ATN or ATT	In the rear compartment, right side, behind rear quarter trim at the D-pillar	—	*X379 Body Harness to 2nd Row Seat Jumper Harness (ATN or ATT)*
X380	Body Harness to Driver Roof Rail Air Bag Jumper (2 Cavities)	—	In the passenger compartment, at the left D-pillar, near the headliner	*Body Harness Routing - Left Rear of Passenger Compartment*	*X380 Body Harness to Driver Roof Rail Air Bag Jumper*
X390	Body Harness to Passenger Roof Rail Air Bag Jumper (2 Cavities)	—	In the passenger compartment, at the right D-pillar, near the headliner	*Body Harness Routing - Right Rear of Passenger Compartment*	*X390 Body Harness to Passenger Roof Rail Air Bag Jumper*
X399	Instrument Panel Harness to Instrument Panel Harness (2 Cavities)	—	In the passenger compartment, below the lower left side of the instrument panel, near the data link connector, at the Body Control Module	*Instrument Panel Harness Routing - Rear of Instrument Panel*	*X399 Instrument Panel Harness to Instrument Panel Harness*
X410	Left Tail Lamp Jumper to Chassis Harness (6 Cavities)	—	At the rear of the vehicle, left corner, underneath, on left frame rail	*Chassis Harness Routing*	• *X410 Left Tail Lamp Jumper to Chassis Harness (X88)* • *X410 Left Tail Lamp Jumper to Chassis Harness (Z75)*
X420	Right Tail Lamp Jumper to Chassis Harness (6 Cavities)	—	At the rear of the vehicle, right corner, underneath, on right frame rail	*Chassis Harness Routing*	• *X420 Right Tail Lamp Jumper to Chassis Harness (X88)* • *X420 Right Tail Lamp Jumper to Chassis Harness (Z75)*
X421	Antenna Jumper Harness COAX to Headliner Harness COAX (1 Cavity)	—	In the rear compartment right side, above the rear quarter glass, above the headliner	—	*X421 Headliner Harness COAX to Antenna Jumper Harness COAX*
X485	CHMSL Harness to Body Harness(2 Cavities)	—	In the rear compartment, at the rear, right of center, attached to the roof above the headliner	—	*X485 CHMSL Jumper Harness to Body Harness*
X486	Body Harness to Rear Dome Lamp Jumper Harness (2 Cavities)	without SWB	In the rear compartment, at the rear, right side, at the top of the D-pillar, above the headliner	*Body Harness Routing - Right Rear of Passenger Compartment*	*X486 Body Harness to Rear Dome Lamp Jumper Harness (without SWB)*
X487	Body Harness to Rear HVAC Jumper Harness (14 Cavities)	—	In the rear compartment, right side, behind the quarter trim on rear HVAC unit	*Body Harness Routing - Right Rear of Passenger Compartment*	*X487 Body Harness to Auxiliary HVAC Jumper Harness*
X490	Body Harness to Body Harness (8 Cavities)	—	In the rear compartment, center, rear of vehicle, above the headliner	*Body Harness Routing - Left Rear of Passenger Compartment*	*X490 Body Harness to Body Harness*
X495	Body Harness to Rear Bumper Harness (40 Cavities)	—	At the rear of the vehicle, at the right corner, behind the rear fascia	*Rear Bumper Harness Routing (Z75)*	*X495 Body Harness to Rear Bumper Harness*
X500	Driver Door Harness to Body Harness (41 Cavities)	—	In the passenger compartment, forward, left side, in the driver door jam, between door hinges	*Driver Door Harness Routing*	*X500 Driver Door Harness to Body Harness*
X505	Driver Door Harness to Driver Door Trim Harness (48 Cavities)	—	In the driver door, behind the driver door panel	*Driver Door Harness Routing*	*X505 Driver Door Harness to Driver Door Trim Harness*

X510	OSRVM Harness to Door Driver Harness (18 Cavities)	—	At the front of the driver door, behind driver door trim panel	—	*X510 OSRVM Harness to Driver Door Harness*
X515	Left OSRVM Camera Jumper to Door Driver Harness (7 Cavities)	UVH	At the front of the left front door, inside the Outside Rearview Mirror	—	*X515 Left OSRVM Camera Jumper to Door Driver Harness (UVH)*
X525	Driver OSRVM Harness to Driver OSRVM Glass Harness (6 Cavities)	—	At the front of the left front door, inside the Outside Rearview Mirror	—	*X525 Driver OSRVM Harness to Driver OSRVM Glass Harness*
X600	Passenger Door Harness to Body Harness (41 Cavities)	—	In the passenger compartment, forward, right side, in the passenger door jam, between door hinges	*Body Harness Routing - Right Front of Passenger Compartment*	*X600 Passenger Door Harness to Body Harness*
X605	Passenger Door Harness to Passenger Door Trim Harness (48 Cavities)	—	In the passenger door, behind the passenger door panel	*Passenger Door Harness Routing*	*X605 Passenger Door Harness to Passenger Door Trim Harness*
X610	OSRVM Harness to Door Passenger Harness (18 Cavities)	—	At the front of the passenger door, behind passenger door trim panel	—	*X610 OSRVM Harness to Passenger Door Harness*
X615	Right OSRVM Camera Jumper to Door Driver Harness (7 Cavities)	UVH	At the front of the right front door, inside the Outside Rearview Mirror	—	*X615 Outside Rearview Mirror Jumper to Passenger Door Harness (UVH)*
X625	Passenger OSRVM Harness to Passenger OSRVM Glass Harness (4 Cavities)	—	At the front of the left front door, inside the Outside Rearview Mirror	—	*X625 Passenger OSRVM Harness to Passenger OSRVM Glass Harness*
X700	Left Rear Door Harness to Body Harness (20 Cavities)	—	In the passenger compartment, behind the left B-pillar, near the middle	*Left Rear Door Harness Routing*	*X700 Left Rear Door Harness to Body Harness*
X705	Left Rear Door Harness to Left Rear Door Trim Harness (6 Cavities)	Z75	In the left rear door, behind the door panel	*Left Rear Door Harness Routing*	*X705 Left Rear Door Harness to Left Rear Door Trim Harness (Z75)*
X800	Right Rear Door Harness to Body Harness (20 Cavities)	—	In the passenger compartment, behind the right B-pillar, near the middle	*Body Harness Routing - Right Front of Passenger Compartment*	*X800 Right Rear Door Harness to Body Harness*
X805	Right Rear Door Harness to Right Rear Door Trim Harness (6 Cavities)	Z75	In the right rear door, behind the door panel	*Right Rear Door Harness Routing*	*X805 Right Rear Door Harness to Right Rear Door Trim Harness (Z75)*
X900	Liftgate Harness to Body Harness (36 Cavities)	—	At the rear of the vehicle, at the top near center of the liftgate	*Liftgate Harness Routing*	*X900 Liftgate Harness to Body Harness*
G100	Auxiliary Battery Negative Harness	L96 or L83 with 5W4 or 9C1	In the engine compartment, front left of center, on front of the engine block, rearward of the auxiliary battery	• *G100 (L83 with 5W4 or 9C1)* • *G100, G110 and G120 (L96)*	—
G101	Forward Lamp Harness	—	Behind front fascia, lower left of the radiator core support, forward of the left side frame mount to the core support	*G101*	—
G102	Forward Lamp Harness	—	Behind front fascia, lower right of the radiator core support, forward of the right side frame mount to the core support	*G102*	—
G103	Battery Negative Harness	—	In the engine compartment, right of center, on the right side frame rail, below battery	*G103 and G125 (L83 or L86)*	—
G110	Engine Harness	L83 or L86	In the engine compartment, on the left side of the engine block near the front, behind the water pump	*G110 (L83 or L86)*	—

G110	Engine Harness	L96	In the engine compartment, on the left side of the engine block, at the bottom near the front, behind the power steering pump	*G100, G110 and G120 (L96)*	—
G120	Engine Harness	L96	In the engine compartment, on the right side of the engine block near the top, at the front	*G100, G110 and G120 (L96)*	—
G121	Chassis Harness	—	Under vehicle, outboard side of left frame rail, rearward side of the front body mount to chassis	*G121*	—
G125	Electric Power Steering Harness	L83 or L86	In the engine compartment, front right of center, on the front of the engine, above the A/C compressor	*G103 and G125 (L83 or L86)*	—
G130	Engine Harness	L83 or L86	In the engine compartment, rear left of center, on the engine, back side of left cylinder head	*G130 and G140 (L83 or L86)*	—
G140	Engine Harness	L83 or L86	In the engine compartment, rear right of center, on the engine, back side of right cylinder head	*G130 and G140 (L83 or L86)*	—
G141	Battery Negative Harness	L83 or L86	In the engine compartment, rear right of center, on the engine, back side of right cylinder head	*G141 (L83 or L86)*	—
G210	Instrument Panel Harness	—	In the passenger compartment, front right of center, top side of instrument panel, below trim, inboard of right A-Pillar	*G210*	—
G218	Instrument Panel Harness	—	In the passenger compartment, front left of center, top side of instrument panel, below trim, inboard of left A-Pillar	*G218*	—
G311	Body Harness	—	In the passenger compartment, left middle, base of left side B-Pillar	*G311 and G325*	—
G312	Body harness	—	In the passenger compartment, right middle, base of right side B-Pillar	*G312 and G327*	—
G325	Body Harness	—	In the passenger compartment, left middle, on floor below driver seat, near X310	*G311 and G325*	—
G327	Body Harness	—	In the passenger compartment, right middle, on floor below passenger seat, near X320	*G312 and G327*	—
G400	Chassis Harness	—	Under vehicle, inboard of left frame rail, top side of rear most cross member	*G400*	—
G402	Body Harness	—	In the luggage compartment, right rear, on right side D-Pillar, near bottom of quarter window	*G402*	—
J101	Front Bumper Harness	T3U	At front of vehicle, middle, approximately 16cm (6.25 inches) forward of the harness break-out for the right fog lamp.	-	-
J102	Aero Shutter Harness	Z75	At front of vehicle, lower middle	-	-
J103	Front Bumper Harness	UGN with Z75	At front of vehicle, middle, approximately 18.5cm (7.25 inches) forward of the harness break-out for the right outer front object sensor.	-	-
J104	Aero Shutter Harness	Z75	At front of vehicle, lower middle	-	-
J105	Front Bumper Harness	UD5	At front of vehicle, middle, approximately 8cm (3.5 inches) forward of the harness break-out for the right outer front object sensor.	-	-

J106	Front Bumper Harness	UGN with Z75	At front of vehicle, middle, approximately 14cm (5.5 inches) forward of the harness break-out for the front view camera.	*Forward Lamp Harness Routing - Left Engine Compartment*	-
J107	Front Bumper Harness	UD5	At front of vehicle, middle, approximately 12cm (4.75 inches) forward of the harness break-out for the right outer front object sensor.	-	-
J110	Left Headlamp Harness	-	At front of vehicle, left, within the headlamp assembly - left	-	-
J111	Forward Lamp Harness	UGN with Z75	In the engine compartment, front middle, approximately 4.5cm (1.75 inches) from break-out to inline X100	-	-
J114	Forward Lamp Harness	-	In the engine compartment, left front, bottom, approximately 9cm (3.5 inches) from break-out to G101	*Forward Lamp Harness Routing - Left Engine Compartment*	-
J115	Forward Lamp Harness	-	In the engine compartment, left front, in the breakout to X110 approximately 18cm (7 inches) from the main harness bundle	*Forward Lamp Harness Routing - Left Engine Compartment*	-
J116	Forward Lamp Harness	Z75	In the engine compartment, left front, approximately 20cm (7.75 inches) from break-out to X110	-	-
J117	Forward Lamp Harness	Z75	In the engine compartment, left front, approximately 15cm (5.75 inches) from break-out to X110	-	-
J118	Left Multifunction Lamp Harness	Z75	At front of vehicle, left, within the multifunction lamp assembly in the front fascia - left	-	-
J119	Aero Shutter Harness	Z75	At front of vehicle, lower middle	-	-
J120	Right Headlamp Harness	-	At front of vehicle, right, within the headlamp assembly - right	-	-
J121	Auxiliary Battery Harness	5W4 or 9C1	In the engine compartment, left front	-	-
J124	Engine Harness	L83 or L86	In the engine compartment, front left of center, approximately 13.5cm (5.25 inches) from break-out to G110	*Engine Harness Routing - Left Front (L83 or L86)*	-
J123	Engine Harness	L96	In the engine compartment, on top of engine assembly, rear of center, approximately 5cm (2 inches) from break-out to B37B Engine Oil Pressure Sensor	*Engine Harness Routing - Left Rear (L96)*	-
J125	Forward Lamp Harness	-	In the engine compartment, front, right of middle, bottom, approximately 7.5cm (3 inches) from break-out to G102	*Forward Lamp Harness Routing - Right Engine Compartment*	-
J126	Engine Harness	L83 or L86	In the engine compartment, front left of center, near thermostat housing, approximately 15.5cm (6 inches) from break-out to X115,	*Engine Harness Routing - Left Front (L83 or L86)*	-
J126	Engine Harness	L96	In the engine compartment, front left of center, bottom left of the engine, in harness break-out to M64 Starter Motor, approximately 12cm (4.75 inches) rearward of the B34 Engine Coolant Temperature Sensor	-	-

J127	Engine Harness	L83 or L86	In the engine compartment, front left of center, in harness break-out to ECM, approximately 17cm (6.5 inches) from main harness bundle	*Engine Harness Routing - Left Front (L83 or L86)*	-
J127	Engine Harness	L96	In the engine compartment, front left of center	*Engine Harness Routing - Left Rear (L96)*	-
J128	Right Multifunction Lamp Harness	Z75	At front of vehicle, right, within the multifunction lamp assembly in the front fascia - right	-	-
J130	Forward Lamp Harness	-	In the engine compartment, left front, bottom, approximately 5cm (2 inches) from break-out to the left impact sensor	*Forward Lamp Harness Routing - Left Engine Compartment*	-
J148	Engine Harness	L96	In the engine compartment, middle left of center, top and back of engine assembly , approximately 16cm (6.25 inches) from the main harness on the breakout to B37B Engine Oil Pressure Sensor	-	-
J149	Engine Harness	L96	In the engine compartment, middle left of center, top of engine assembly , approximately 12.5cm (5 inches) rearward of break-out to B74 Manifold Absolute Pressure Sensor	-	-
J150	Engine Harness	K59	In the engine compartment, front left of center, bottom near power steering pump, approximately 14cm (5.50 inches) from break-out to the left knock sensor	*Engine Harness Routing - Left Front (L83 or L86)*	-
J151	Engine Harness	K59	In the engine compartment, front left of center, bottom near power steering pump, approximately 6cm (2.25 inches) from break-out to the left knock sensor	*Engine Harness Routing - Left Front (L83 or L86)*	-
J152	Engine Harness	K59	In the engine compartment, middle left of center, near top, approximately 5cm (2 inches) forward of break-out to ignition coil number 1	*Engine Harness Routing - Left Front (L83 or L86)*	-
J153	Engine Harness	K59	In the engine compartment, middle left of center, near top, approximately 3cm (1 inch) rearward of break-out to ignition coil number 1	*Engine Harness Routing - Left Front (L83 or L86)*	-
J160	Ignition Coil (Odd) Harness	L96	In the engine compartment, middle left of center, on top of the engine assembly, approximately 5cm (2 inches) from break-out to X170	-	-
J161	Engine Harness	L83 or L86	In the engine compartment, middle left of center, near top, approximately 7cm (2.75 inches) rearward of break-out to ignition coil number 1	*Engine Harness Routing - Left Front (L83 or L86)*	-
J161	Ignition Coil (Odd) Harness	L96	In the engine compartment, middle left of center, on top of the engine assembly, approximately 5cm (2 inches) from break-out to X170	-	-
J162	Engine Harness	L83 or L86	In the engine compartment, middle right of center, near top, approximately 5cm (2 inches) foreward of break-out to ignition coil number 4	-	-
J162	Ignition Coil (Even) Harness	L96	In the engine compartment, middle left of center, on top of the engine assembly, approximately 5cm (2 inches) from break-out to X171	-	-
J163	Engine Harness	L83 or L86	In the engine compartment, front left of center, near top, approximately 10.5cm (4 inches) from break-out to engine oil pressure sensor	*Engine Harness Routing - Left Front (L83 or L86)*	-

J164	Ignition Coil (Even) Harness	L96	In the engine compartment, middle left of center, on top of the engine assembly, approximately 5cm (2 inches) from break-out to X171	-	-
J165	Engine Harness	L83 or L86	In the engine compartment, rear left of center, on break-out to X115, approximately 12cm (4.75 inches) from main harness bundle	*Engine Harness Routing - Left Front (L83 or L86)*	-
J165	Engine Harness	L96	In the engine compartment, rear left of center, left side of engine, approximately 7cm (2.75 inches) from break-out to X115	*Engine Harness Routing - Left Rear (L96)*	-
J166	Engine Harness	L83 or L86	In the engine compartment, rear center, top, approximately 19cm (7.5 inches) left of break-out to G140	*Engine Harness Routing - Right Rear (L83 or L86)*	-
J166	Ignition Coil (Odd) Harness	L96	In the engine compartment, middle left of center, on top of the engine assembly, approximately 5cm (2 inches) from break-out to X170	-	-
J167	Ignition Coil (Even) Harness	L96	In the engine compartment, middle left of center, on top of the engine assembly, approximately 5cm (2 inches) from break-out to X171	-	-
J175	Transmission 8-Speed	M5U	Internal to transmission	-	-
J176	Transmission 8-Speed	M5U	Internal to transmission	-	-
J177	Transmission 8-Speed	M5U	Internal to transmission	-	-
J178	Engine Harness	M5U	In the engine compartment, rear center, top, approximately 18cm (7 inches) from break-out to X160	-	-
J179	Engine Harness	M5U	In the engine compartment, rear center, top, approximately 14.5cm (5.75 inches) from break-out to X160	-	-
J191	Chassis Harness	-	Underside of the vehicle, left frame rail, approximately 35.5cm (14 inches) rearward of break-out for G121	*Chassis Harness Routing*	-
J192	Chassis Harness	BRS	Underside of the vehicle, left frame rail, approximately 30.5cm (12 inches) rearward of break-out for G121	*Chassis Harness Routing*	-
J200	Instrument Panel Harness	-	In the instrument panel, left of center, behind cluster, approximately 2cm (1 inches) from break-out to G218	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J201	Instrument Panel Harness	-	In the instrument panel, left of center, behind cluster, approximately 2cm (1 inches) from break-out to G218	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J205	Instrument Panel Harness	-	In the instrument panel, left of center, behind cluster, approximately 4cm (1.5 inches) from break-out to G218	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J207	Brake/Clutch Harness	NP0 or NQH	Underside of instrument panel, left side, approximately 44cm (17.25 inches) from break-out to transfer case control module	-	-
J208	Instrument Panel Harness	-	In the instrument panel, left side, on a break-out to the BCM, approximately 14cm (5.5 inches) from main harness bundle	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-

J210	Instrument Panel Harness	-	In the instrument panel, left side, approximately 2.5cm (1 inch) from breakout to BCM	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J211	Instrument Panel Harness	-	In the instrument panel, left of center, behind cluster, approximately 7cm (2.75 inches) from break-out to G218	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J212	Instrument Panel Harness	Z75	In the instrument panel, left of center, behind cluster, approximately 12cm (4.75 inches) from breakout to X300	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J220	Instrument Panel Harness	-	In the instrument panel, center, approximately 5cm (2 inches) from break-out to the media disc player	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J241	Instrument Panel Harness	-	In the instrument panel, left side, on a break-out to X225, in a formed conduit, approximately 20cm (8 inches) from X225	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J242	Instrument Panel Harness	-	In the instrument panel, right side, behind glove box, approximately 5cm (2 inches) from break-out to the right instrument panel fuse block	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J249	Instrument Panel Harness	-	In the instrument panel, center, approximately 12cm (4.75 inches) from break-out to the radio	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J250	Instrument Panel Harness	IO5 or IO6 or TG5	In the instrument panel, center, approximately 20cm (7.75 inches) from break-out to the right instrument panel fuse block	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J251	Instrument Panel Harness	-	In the instrument panel, center, approximately 6cm (2.5 inches) from break-out to the radio	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J255	HVAC Harness	-	In the front of the passenger compartment, near center, approximately 4cm (1.5 inches) from breakout to G210	-	-
J257	HVAC Harness	-	In the front of the passenger compartment, near center, approximately 23.5cm (9.25 inches) from breakout to X215	-	-
J258	HVAC Harness	-	In the front of the passenger compartment, near center, approximately 6.5cm (2.5 inches) from breakout to air temerature door actuator - right	-	-
J259	HVAC Harness	-	In the front of the passenger compartment, near center, approximately 23.5cm (9.25 inches) from breakout to X215	-	-
J260	Instrument Panel Harness	IO5 or IO6 with UE1, UEU, UFL, or UHX	In the instrument panel, center, approximately 13cm (5 inches) from break-out to the radio	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J279	Steering Column Harness	-	In the front of the passenger compartment, left of center, along steering column	-	-
J284	Steering Column Harness	-	In the front of the passenger compartment, left of center, along steering column	-	-
J285	Steering Column Harness	-	In the front of the passenger compartment, left of center, in steering wheel, between S70L and break-out to X85	*Steering Wheel Harness Routing*	-
J286	Steering Column Harness	UVD	In the front of the passenger compartment, left of center, in steering wheel, between S70R and break-out to X85	-	-

J289	Body Harness	-	In the passenger compartment, front, left of center, behind instrument panel, inside a formed conduit, approximately 6cm (2.25 inches) from the break-out to the instrument panel junction block	*Body Harness Routing - Left Front of Passenger Compartment*	-
J294	Instrument Panel Harness	-	In the instrument panel, left side, between break-out for the BCM and break-out for X399	*Instrument Panel Harness Routing - Rear of Instrument Panel*	-
J295	Steering Column Harness	-	In the front of the passenger compartment, left of center, in steering wheel, between S70R and break-out to X85	*Steering Wheel Harness Routing*	
J301	Overhead Console Harness	-	In the passenger compartment, overhead, front and center, on break-out to right overhead console reading lamp, approximately 3cm (1.25 inches) from main harness bundle	*Overhead Console Harness Routing*	-
J302	Overhead Console Harness	-	In the passenger compartment, overhead, front and center, approximately 3.5cm (1.25 inches) from break-out to floor console flood lamp	*Overhead Console Harness Routing*	-
J303	Overhead Console Harness	-	In the passenger compartment, overhead, front and center, approximately 8.5cm (3.5 inches) from break-out to right overhead console reading lamp	*Overhead Console Harness Routing*	-
J304	Body Harness	Z75	In the passenger compartment, front, left side, behind instrument panel, approximately 4cm (1.5 inches) from the break-out to X225	*Body Harness Routing - Left Front of Passenger Compartment*	-
J305	Passenger Seat Harness	ULT	In the passenger compartment, forward of middle, right of center, within the passenger seat cusion	-	-
J306	Body Harness	-	In the passenger compartment, forward of middle, just left of center, between driver and passenger seat, in a formed conduit, approximately 27.5cm (10.75 inches) from the break-out to the inflatable restraint sensing and diagnostic module	*Body Harness Routing - Left Front of Passenger Compartment*	-
J307	Body Harness	DL3 or DR4	In the passenger compartment, front, left side, along A-pillar, in the break-out to X500, in a formed conduit, approximately 20cm (7.75 inches) from the main harness bundle	*Body Harness Routing - Left Front of Passenger Compartment*	-
J308	Body Harness	-	In the passenger compartment, front, left side, along A-pillar, in the break-out to the left instrument panel fuse block, approximately 4cm (1.5 inches) from the main harness bundle	*Body Harness Routing - Left Front of Passenger Compartment*	-
J309	Body Harness	JL1, NP0 or NQH	In the passenger compartment, front, left side, behind instrument panel, approximately 6cm (2.25 inches) from the break-out for the Park Brake Switch	*Body Harness Routing - Left Front of Passenger Compartment*	-
J310	Body Harness	UTT	In the passenger compartment, front, left side, along A-pillar, forward of driver door sill, approximately 5cm (2 inches) from the break-out to left instrument panel fuse block	*Body Harness Routing - Left Front of Passenger Compartment*	-
J311	Headliner Harness	-	In the passenger compartment, overhead, front and to the left, approximately 14cm (5.5 inches) fromt the break-out to X316	*Headliner Harness Routing*	-

J312	Headliner Harness	-	In the passenger compartment, overhead, front and to the left, approximately 45cm (17.75 inches) fromt the break-out to X316	*Headliner Harness Routing*	-
J313	Driver Seat Harness	-	In the passenger compartment, forward of middle, left of center, within the driver seat cusion, between the break-out to sear front vertical motor and break-out to seat belt switch	*Driver Seat Harness Routing*	-
J314	Driver Seat Harness	-	In the passenger compartment, forward of middle, left of center, within the driver seat cusion, between the break-out to sear front vertical motor and break-out to seat belt switch	*Driver Seat Harness Routing*	-
J315	Driver Seat Harness	-	In the passenger compartment, forward of middle, left of center, within the driver seat cusion, between the break-out to sear front vertical motor and break-out to seat rear vertical motor	*Driver Seat Harness Routing*	-
J316	Driver Seat Harness	KB6	In the passenger compartment, forward of middle, left of center, within the driver seat cusion, between X310 and break-out to seat rear vertical motor	*Driver Seat Harness Routing*	-
J317	Driver Seat Harness	KB6	In the passenger compartment, forward of middle, left of center, within the driver seat cusion, between X310 and break-out to seat rear vertical motor	*Driver Seat Harness Routing*	-
J318	Driver Seat Harness	KB6	In the passenger compartment, forward of middle, left of center, within the driver seat back	-	-
J319	Headliner Harness	DNU or U42	In the passenger compartment, overhead, front and to the left, approximately 56cm (22 inches) fromt the break-out to X203	*Headliner Harness Routing*	-
J320	Headliner Harness	AZ3	In the passenger compartment, overhead, front and to the left, approximately 38cm (15 inches) fromt the break-out to X316	*Headliner Harness Routing*	-
J322	Body Harness	without SWB or Z75	In the passenger compartment, forward of middle, just right of center, between driver and passenger seat, in a formed conduit, approximately 20.5cm (8 inches) from the break-out to G327	*Body Harness Routing - Right Front of Passenger Compartment*	-
J323	Passenger Seat Harness	AN3, A95, KA1 or KB6	In the passenger compartment, forward of middle, right of center, within the passenger seat cusion, between break-out for passenger seat back connector and break-out for passenger presence module	-	-
J325	Headliner Harness	-	In the passenger compartment, overhead, front and to the left, approximately 20.5cm (8 inches) fromt the break-out to X316	-	-
J326	Passenger Seat Harness	KB6	In the passenger compartment, forward of middle, right of center, within the passenger seat cusion, between break-out for cusion heating element and break-out for the lumbar switch.	-	-

J327	Passenger Seat Harness	KB6	In the passenger compartment, forward of middle, right of center, within the passenger seat cusion, between break-out for passenger seat back connector and break-out for passenger presence module	-	-
J328	Passenger Seat Harness	KB6	In the passenger compartment, forward of middle, right of center, within the passenger seat back	-	-
J329	Passenger Seat Harness	ULT	In the passenger compartment, forward of middle, right of center, within the passenger seat cusion	-	-
J330	Body Harness	BTM or UGN	In the passenger compartment, forward of middle, left side, under the driver seat, near the driver door sill, in a formed conduit, approximately 9cm (3.5 inches) from the break-out for G325	*Body Harness Routing - Left Front of Passenger Compartment*	-
J331	Body Harness	-	In the passenger compartment, forward of middle, left side, under the driver seat, near the driver door sill, in a formed conduit, approximately 9cm (3.5 inches) from the break-out for G325	*Body Harness Routing - Left Front of Passenger Compartment*	-
J332	Headliner Harness	-	In the passenger compartment, overhead, front and to the left, approximately 51.5cm (20.25 inches) fromt the break-out to X316	*Headliner Harness Routing*	-
J333	Overhead Console Harness	-	In the passenger compartment, overhead, front and center, on break-out to passenger disabled indicator, approximately 5cm (2 inches) from main harness bundle	*Overhead Console Harness Routing*	-
J334	Body Harness	UGN with Z75	In the passenger compartment, forward of middle, left side, under the driver seat, in a formed conduit, approximately 14cm (5.5 inches) from the break-out for G325	*Body Harness Routing - Left Front of Passenger Compartment*	-
J335	Driver Seat Harness	ULT	In the passenger compartment, forward of middle, left of center, within the driver seat back	-	-
J338	Driver Seat Harness	ULT	In the passenger compartment, forward of middle, left of center, within the driver seat cusion	-	-
J339	Floor Console Harness	D07 with DCK or K4C	In passenger compartment, forward of middle, between the driver and passenger seat, in floor console, approximately 17cm (6.75 inches) from the break-out to the accessory power receptacle for the floor console storage bin	● *Floor Console Harness Routing - Top (X88 or Z88)* ● *Floor Console Harness Routing - Bottom Front (Z75)*	-
J342	Body Harness	UQA	In the passenger compartment, rear of middle, left side, approximately 39cm (15.25 inches) from the break-out for the right rear glass breakage sensor	-	-
J343	Body Harness	UQA	In the passenger compartment, rear of middle, left side, approximately 22.5cm (8.75 inches) from the break-out for the right rear glass breakage sensor	-	-

J346	Body Harness	UQA	In the passenger compartment, rear of middle, left side, approximately 43cm (16.75 inches) from the break-out for the right rear glass breakage sensor	-	-
J347	Body Harness	UQA	In the passenger compartment, rear of middle, right side, approximately 15cm (6 inches) from the break-out to X800	-	-
J348	Passenger Seat Harness	ULT	In the passenger compartment, forward of middle, right of center, within the passenger seat cusion	-	-
J350	Body Harness	-	In the passenger compartment, forward of middle, just right of center, between driver and passenger seat, in a formed conduit, approximately 35cm (13.75 inches) from the break-out to G327	*Body Harness Routing - Left Front of Passenger Compartment*	-
J351	Body Harness	BTM	In the passenger compartment, near middle, left side, near base of B-Pillar, approximately 20cm (7.75 inches) from the break-out to the driver side seat retractor	*Body Harness Routing - Left Middle of Passenger Compartment*	-
J352	Body Harness	ATN or ATT	In the passenger compartment, near middle, left side, along left rear door sill, in a formed conduit, approximately 15cm (6 inches) from the break-out to X308	*Body Harness Routing - Left Middle of Passenger Compartment*	-
J353	Body Harness	-	In the passenger compartment, near middle, left side, at the base of the B-pillar, in a formed conduit, approximately 7cm (2.75 inches) from the break-out to X700	*Body Harness Routing - Left Front of Passenger Compartment*	-
J354	Body Harness	-	In the passenger compartment, near rear, left side, at base of C-pillar, approximately 25cm (10 inches) from the break-out to the left rear side impact sensor	*Body Harness Routing - Left Middle of Passenger Compartment*	-
J355	Chassis Harness	-	Underside of the vehicle, left frame rail, on main harness bundle, approximately 45cm (17.75 inches) rearward of break-out for the brake control module	*Chassis Harness Routing*	-
J356	Chassis Harness	-	Underside of the vehicle, left frame rail, on main harness bundle, approximately 15cm (6 inches) rearward of break-out for the brake control module	*Chassis Harness Routing*	-
J357	Second Row Seat Left Harness	ATN or ATT with KA6	In the passenger compartment, near middle, left side, in the second row left seat, approximately 20.5cm (8 inches) from X308	*Second Row Seat Harness Routing*	-
J358	Body Harness	5W4 or 9C1	In the passenger compartment, near middle, left side, near B-pillar, approximately 8.5cm (3.5 inches) from the break-out to G325	-	-
J360	Body Harness	-	In the passenger compartment, forward of middle, right side, along passenger door sill, in a formed conduit, approximately 35.5cm (14 inches) from the break-out to G312	*Body Harness Routing - Right Front of Passenger Compartment*	-

J361	Body Harness	-	In the passenger compartment, forward of middle, left of center, between driver and passenger seat, in a formed conduit, approximately 18cm (7 inches) from the break-out to the inflatable restraint and diagnostic module	*Body Harness Routing - Left Front of Passenger Compartment*	-
J362	Body Harness	AZ3, AX7, ATN, ATT, KA6 or Z75	In the passenger compartment, forward of middle, right side, along the driver door sill, just forward of the B-pillar, in a formed conduit, approximately 12cm (4.5 inches) from the break-out to G312	*Body Harness Routing - Right Front of Passenger Compartment*	-
J363	Body Harness	-	In the passenger compartment, forward of middle, right side, along the driver door sill, in a formed conduit, approximately 44cm (17 inches) from the break-out to G312	*Body Harness Routing - Right Front of Passenger Compartment*	-
J364	Body Harness	Z75	In the passenger compartment, forward of middle, right side, under the passenger seat, in a formed conduit, approximately 7cm (2.75 inches) from the break-out to G327	*Body Harness Routing - Right Front of Passenger Compartment*	-
J365	Body Harness	-	In the passenger compartment, front, right side, along passenger door sill, in a formed conduit, approximately 47.5cm (18.75 inches) from the break-out to X275	*Body Harness Routing - Right Front of Passenger Compartment*	-
J366	Second Row Seat Right Harness	ATN or ATT with KA6	In the passenger compartment, near middle, left side, in the second row right seat, approximately 23cm (9 inches) from X378	*Second Row Seat Harness Routing*	-
J367	Body Harness	DL3 or DR4	In the passenger compartment, front, right side, along passenger door sill, in a formed conduit, approximately 41.5cm (16.5 inches) from the break-out to X275	*Body Harness Routing - Right Front of Passenger Compartment*	-
J368	Body Harness	-	In the passenger compartment, front, right side, along passenger door sill, in a formed conduit, approximately 52.5cm (20.75 inches) from the break-out to X275	*Body Harness Routing - Right Front of Passenger Compartment*	-
J369	Body Harness	-	In the passenger compartment, front, right side, along passenger door sill, in a formed conduit, approximately 57.5cm (22.5 inches) from the break-out to X275	*Body Harness Routing - Right Front of Passenger Compartment*	-
J370	Body Harness	KA1, KA6 or UTT	In the passenger compartment, front, right side, along passenger door sill, in a formed conduit, approximately 30cm (11.75 inches) from the break-out to G312	*Body Harness Routing - Right Front of Passenger Compartment*	-
J371	Body Harness	-	In the passenger compartment, forward of middle, right side, under the passenger seat, in a formed conduit, approximately 16cm (6.5 inches) from the break-out to G312	*Body Harness Routing - Right Front of Passenger Compartment*	-
J372	Body Harness	A45	In the passenger compartment, forward of middle, right side, under the passenger seat, in a formed conduit, approximately 12cm (4.75 inches) from the break-out to G312	*Body Harness Routing - Right Front of Passenger Compartment*	-
J373	Body Harness	UTT	In the passenger compartment, forward of middle, right side, under the passenger seat, in a formed conduit, approximately 3cm (1.25 inches) from the break-out to G312	*Body Harness Routing - Right Front of Passenger Compartment*	-

J374	Chassis Harness	5W4 or 9C1	In the passenger compartment, forward of middle, just right of center, between driver and passenger seat, in a formed conduit, approximately 47cm (17 inches) from the break-out to G327	-	-
J375	Chassis Harness	-	Underside of the vehicle, left frame rail, on main harness bundle, approximately 8cm (3 inches) forward of break-out for X351	*Chassis Harness Routing*	-
J376	Chassis Harness	5W4 or 9C1	In the passenger compartment, forward of middle, just right of center, between driver and passenger seat, in a formed conduit, approximately 41cm (16 inches) from the break-out to G327	-	-
J379	Body Harness	DL3, DL8 or DR4	In the passenger compartment, forward of middle, just left of center, between the driver and passenger seat, in a formed conduit, approximately 43cm (17 inches) from the break-out to the inflatable restraint and diagnostic module	*Body Harness Routing - Left Front of Passenger Compartment*	-
J381	Body Harness	UTT	In the passenger compartment, rear, left side, approximately 10cm (4 inches) from the break-out to the rear fuse block	-	-
J382	Body Harness	BRS, DL3, DR4 or HD7	In the passenger compartment, forward of middle, just left of center, between the driver and passenger seat, in a formed conduit, approximately 23.5cm (9.25 inches) from the break-out to the inflatable restraint and diagnostic module	*Body Harness Routing - Left Front of Passenger Compartment*	-
J383	Body Harness	-	In the passenger compartment, forward of middle, just left of center, between the driver and passenger seat, in a formed conduit, approximately 32cm (12 inches) from the break-out to the inflatable restraint and diagnostic module	*Body Harness Routing - Left Front of Passenger Compartment*	-
J384	Body Harness	-	In the passenger compartment, forward of middle, just right of center, between the driver and passenger seat, in a formed conduit, approximately 54cm (21 inches) from the break-out to the inflatable restraint and diagnostic module	*Body Harness Routing - Left Front of Passenger Compartment*	-
J385	Body Harness	ULT	In the passenger compartment, forward of middle, center, between the driver and passenger seat, in a formed conduit, approximately 11cm (4.5 inches) from the break-out to the multi-axis acceleration sensor	*Body Harness Routing - Left Front of Passenger Compartment*	-
J386	Body Harness	-	In the passenger compartment, forward of middle, just left of center, between the driver and passenger seat, in a formed conduit, approximately 32.5cm (12.75 inches) from the break-out to the inflatable restraint and diagnostic module	*Body Harness Routing - Left Front of Passenger Compartment*	-
J387	Accessory Power Harness	AYE	In the passenger compartment, in the floor console, left side under the instrument panel, approximately 11cm (4.5 inches) from KR103 DVD Relay	-	-

J401	Body Harness	ATN or ATT	In the rear compartment, rear, right side, along the D-pillar, approximately 6cm (2.5 inches) from the break-out to the right rear accessory power receptacle	*Body Harness Routing - Right Rear of Passenger Compartment*	-
J402	Body Harness	-	In the rear compartment, rear, right side, just forward of the D-pillar, approximately 16cm (6.5 inches) from the break-out to the right glass breakage sensor	*Body Harness Routing - Right Rear of Passenger Compartment*	-
J403	Body Harness	K59, TC2, UEU, UFL UHX, UGN or UKC	In the rear compartment, rear, right side, along the D-pillar, approximately 8cm (3 inches) from the break-out to the right rear accessory power receptacle	*Body Harness Routing - Right Rear of Passenger Compartment*	-
J404	Body Harness	ATT or ATN	In the rear compartment, rear, right side, along the D-pillar, on the break-out to X495, approximately 6cm (2.5 inches) from the main harness bundle	*Body Harness Routing - Right Rear of Passenger Compartment*	-
J410	Left Tail Lamp Harness	Z75	At rear of vehicle, left, within the tail lamp assembly - left	-	-
J420	Right Tail Lamp Harness	Z75	At rear of vehicle, right, within the tail lamp assembly - right	-	-
J449	Chassis Harness	JL1 or Z85	Underside of the vehicle, left frame rail, at rear of vehicle, approximately 20cm (7.75 inches) forward of break-out for the left rear speed sensor	*Chassis Harness Routing*	-
J450	Chassis Harness	-	Underside of the vehicle, left frame rail, at rear of vehicle, approximately 17cm (6.75 inches) rearward of break-out for the fuel pump driver control module	*Chassis Harness Routing*	-
J451	Chassis Harness	BRS, JL1, Z85 or Z95	Underside of the vehicle, left frame rail, at rear of vehicle, approximately 14cm (5.50 inches) forward of break-out for the left rear speed sensor	*Chassis Harness Routing*	-
J453	Chassis Harness	-	Underside of the vehicle, left frame rail, at rear of vehicle, approximately 7cm (3 inches) rearward of break-out for the fuel pump driver control module	*Chassis Harness Routing*	-
J455	HVAC Rear Harness	D07	In the passenger compartment, forward of middle, near center, between driver and passenger seat, in the rear HVAC harness	-	-
J460	Body Harness	ATN or ATT	In the rear compartment, rear, left side, below rear quarter glass, approximately 42cm (16.75 inches) from the break-out to the glass breakage sensor	*Body Harness Routing - Left Rear of Passenger Compartment*	-
J461	Body Harness	UQS	In the rear compartment, rear, left side, below rear quarter glass, approximately 15cm (6 inches) from the break-out to the glass breakage sensor	*Body Harness Routing - Left Rear of Passenger Compartment*	-
J462	Body Harness	UQS	In the rear compartment, rear, left side, below rear quarter glass, approximately 6cm (2.25 inches) from the break-out to the glass breakage sensor	*Body Harness Routing - Left Rear of Passenger Compartment*	-
J490	Rear Bumper Harness	UD5 or UD7	At rear of vehicle, right side, approximately 3.5cm (1.5 inches) from the break-out to the right side object sensor module	*Rear Bumper Harness Routing (X88 or Z88)*	-

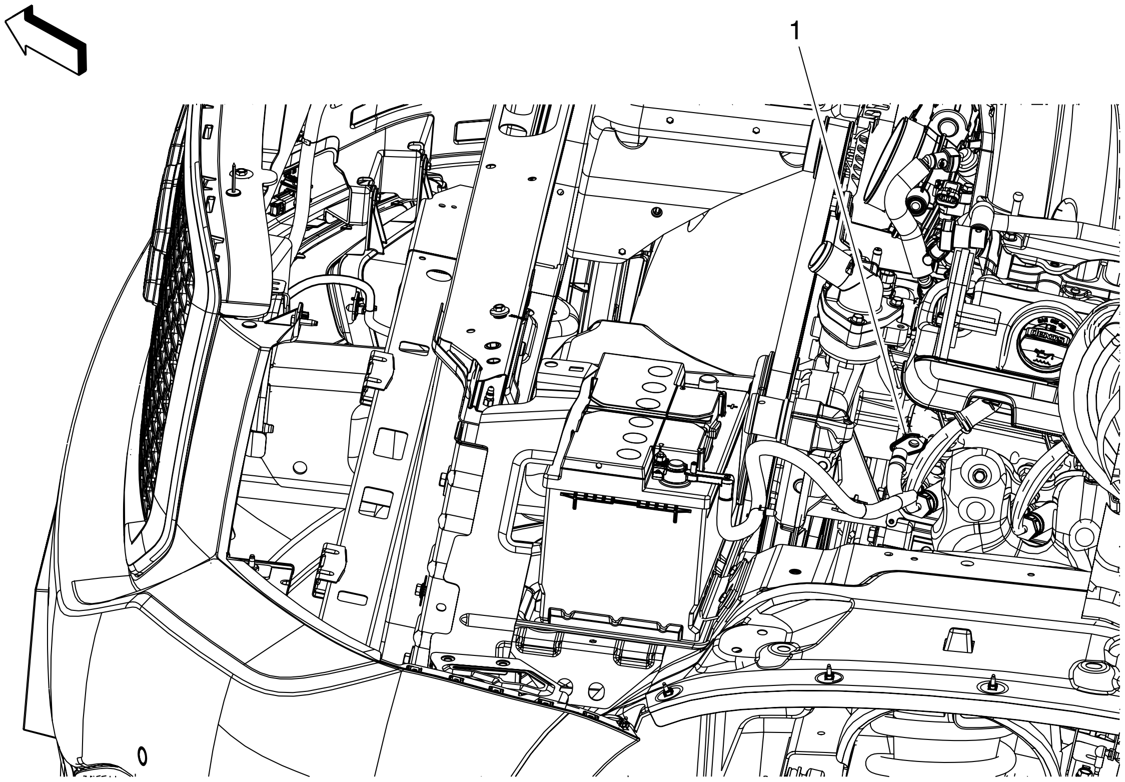
J491	Euro Trailer Harness	VQ9	In Euro Trailer Harness	-	-
J493	Rear Bumper Harness	T79	At rear of vehicle, right side, approximately 26.5cm (10.25 inches) from the break-out to the right middle rear object sensor	*Rear Bumper Harness Routing (X88 or Z88)*	-
J494	Rear Bumper Harness	Z75 with UGN	At rear of vehicle, right side, approximately 4.5cm (2 inches) from the break-out to the right outer rear object sensor	*Rear Bumper Harness Routing (Z75)*	-
J495	Rear Bumper Harness	UD5 or UD7	At rear of vehicle, right side, approximately 6.5cm (2.5 inches) from the break-out to the right outer rear object sensor	*Rear Bumper Harness Routing (X88 or Z88)*	-
J498	Rear Bumper Harness	UKC	At rear of vehicle, right side, approximately 12.5cm (5 inches) from the break-out to the right middle rear object sensor	*Rear Bumper Harness Routing (X88 or Z88)*	-
J499	Rear Bumper Harness	T79, UKC or UGN with Z75	At rear of vehicle, right side, approximately 15cm (6 inches) from the break-out to the right outer rear object sensor	*Rear Bumper Harness Routing (X88 or Z88)*	-
J511	Driver Door Harness	HD7	In the driver door, near front, approximately 12.5cm (5 inches) from the break-out to X505	-	-
J515	Driver Door Harness	-	In the driver door, near front, approximately 5cm (2 inches) from the break-out to X505	*Driver Door Harness Routing*	-
J516	Driver Door Trim Harness	-	In the driver door, near front, approximately 6cm (2.5 inches) from the break-out to the outside rearview mirror switch	*Driver Door Harness Routing*	-
J517	Left Outside Rearview Mirror Harness	DL3, DR4 or UKC	On outside of driver door, front middle, forward of window opening	-	-
J518	Driver Door Trim Harness	Z75	In the driver door, near middle, approximately 4cm (1.5 inches) from the break-out to the driver seat memory switch	*Driver Door Harness Routing*	-
J519	Driver Door Trim Harness	-	In the driver door, near middle, approximately 1.5cm (0.5 inches) from the break-out to the outside rearview mirror switch	*Driver Door Harness Routing*	-
J520	Driver Door Trim Harness	Z75	In the driver door, near middle, approximately 7cm (3 inches) from the break-out to the driver door accent lamp	*Driver Door Harness Routing*	-
J550	Driver Door Harness	-	In the driver door, near front, approximately 17cm (6.75 inches) from the break-out to the driver window motor	-	-
J611	Passenger Door Harness	HD7	In the passenger door, near front, approximately 12cm (5 inches) from the break-out to X605	*Passenger Door Harness Routing*	-
J615	Passenger Door Harness	-	In the passenger door, near front, approximately 5cm (2 inches) from the break-out to X605	*Passenger Door Harness Routing*	-
J616	Passenger Door Trim Harness	-	In the passenger door, near front, approximately 16.5cm (6.5 inches) from the break-out to the passenger window switch	*Passenger Door Harness Routing*	-
J617	Right Outside Rearview Mirror Harness	DL3, DR4 or UKC	On outside of passenger door, front middle, forward of window opening	-	-

J620	Passenger Door Trim Harness	Z75	In the passenger door, near front, approximately 12cm (4.5 inches) from the break-out to the passenger window switch	*Passenger Door Harness Routing*	-
J710	Left Rear Door Harness	UQH	In the left rear door, near front, approximately 10cm (4 inches) from the break-out to the left rear window switch	*Left Rear Door Harness Routing*	-
J711	Left Rear Door Harness	UQH	In the left rear door, near front, approximately 18cm (7.25 inches) from the break-out to the left rear door speaker	*Left Rear Door Harness Routing*	-
J715	Left Rear Door Harness	-	In the left rear door, near front, approximately 3.5cm (1.25 inches) from the break-out to the left rear window switch	*Left Rear Door Harness Routing*	-
J716	Left Rear Door Trim Harness	Z75	In the left rear door, near middle, approximately 3cm (1.25 inches) from the break-out to the left rear door pocket flood lamp	*Left Rear Door Harness Routing*	-
J720	Left Rear Door Trim Harness	Z75	In the left rear door, near middle, approximately 7cm (2.75 inches) from the break-out to the left rear door pocket flood lamp	*Left Rear Door Harness Routing*	-
J810	Right Rear Door Harness	UQH	In the right rear door, near front, approximately 10cm (4 inches) from the break-out to the right rear window switch	*Right Rear Door Harness Routing*	-
J811	Right Rear Door Harness	UQH	In the right rear door, near front, approximately 18cm (7.25 inches) from the break-out to the right rear door speaker	*Right Rear Door Harness Routing*	-
J815	Right Rear Door Harness	-	In the right rear door, near front, approximately 3.5cm (1.25 inches) from the break-out to the right rear window switch	*Right Rear Door Harness Routing*	-
J816	Right Rear Door Trim Harness	Z75	In the right rear door, near middle, approximately 3cm (1.25 inches) from the break-out to the right rear door pocket flood lamp	*Right Rear Door Harness Routing*	-
J820	Right Rear Door Trim Harness	Z75	In the right rear door, near middle, approximately 7cm (2.75 inches) from the break-out to the right rear door pocket flood lamp	*Right Rear Door Harness Routing*	-
J901	Liftgate Harness	-	In the liftgate, top, right side, in the harness break-out to the defogger grid, approximately 34cm (13.25 Inches) from the defogger grid connector	*Liftgate Harness Routing*	-
J902	Liftgate Harness	-	In the liftgate, top, left side, approximately 5cm (2 Inches) from the break-out to the defogger grid connector	*Liftgate Harness Routing*	-
J903	Liftgate Harness	TB5 or TC2	In the liftgate, near center, just left of center, approximately 10cm (4 Inches) from the break-out to the liftgate latch assembly	*Liftgate Harness Routing*	-
J904	Liftgate Harness	-	In the liftgate, near center of tailgate, approximately 10cm (4 Inches) from the break-out to the right license plate lamp	*Liftgate Harness Routing*	-
JX200	Splice Pack – Instrument Panel	—	In the passenger compartment, at the rear of the instrument panel, left side at the Body Control Module	*Instrument Panel Harness Routing - Rear of Instrument Panel*	*JX200 Splice Pack - Instrument Panel*

JX300	Splice Pack – Body	—	In the passenger compartment, right side, in passenger footwell, behind kick panel trim near X275	*Body Harness Routing - Right Front of Passenger Compartment*	*JX300 Splice Pack - Body*

Ground Views

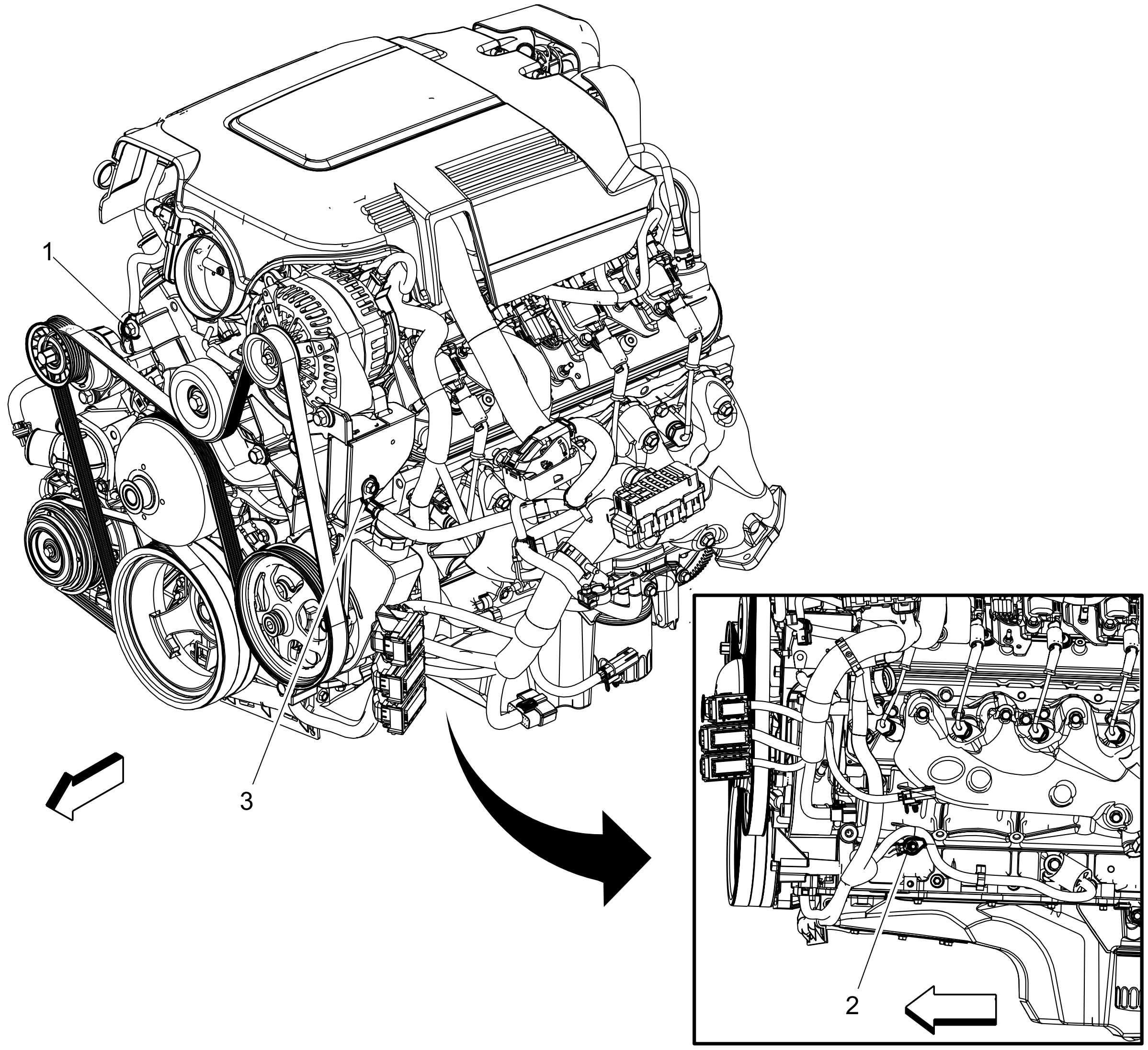
G100 (L83 with 5W4 or 9C1)



Items

1. G100 (L96 or L83 with 5W4 or 9C1)

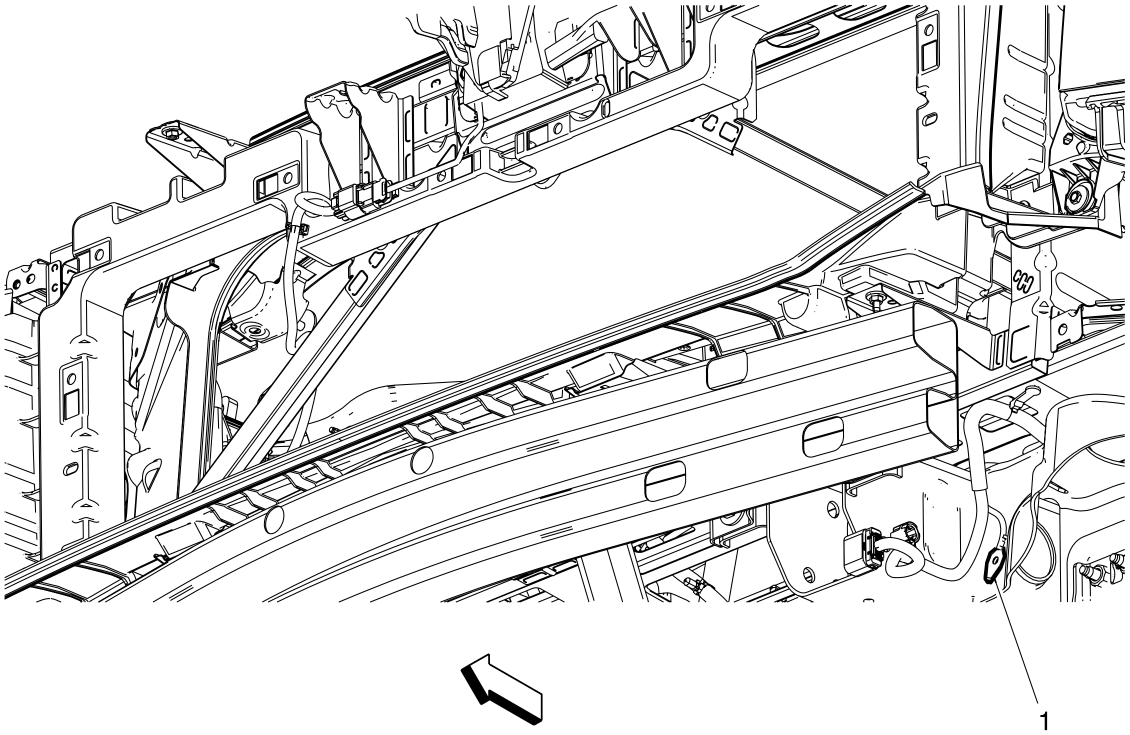
G100, G110 and G120 (L96)



Items

1. G120 (L96)
2. G110
3. G100 (L96 or L83 with 5W4 or 9C1)

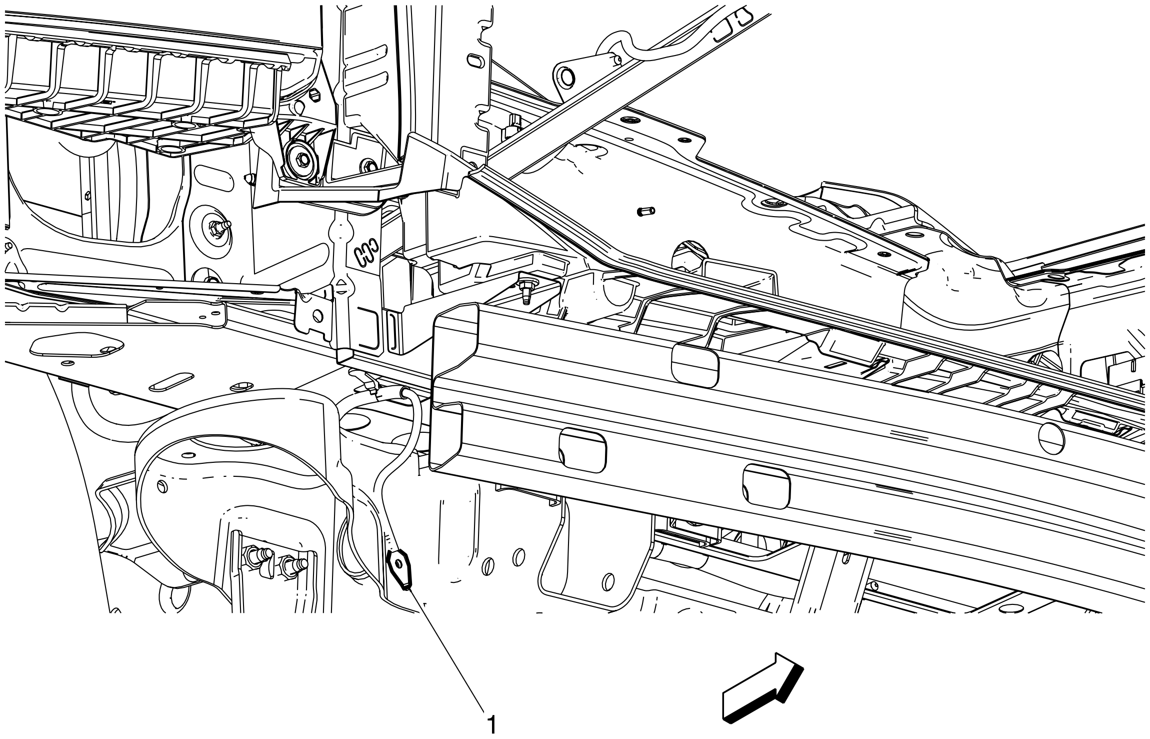
G101



Items

1. G101

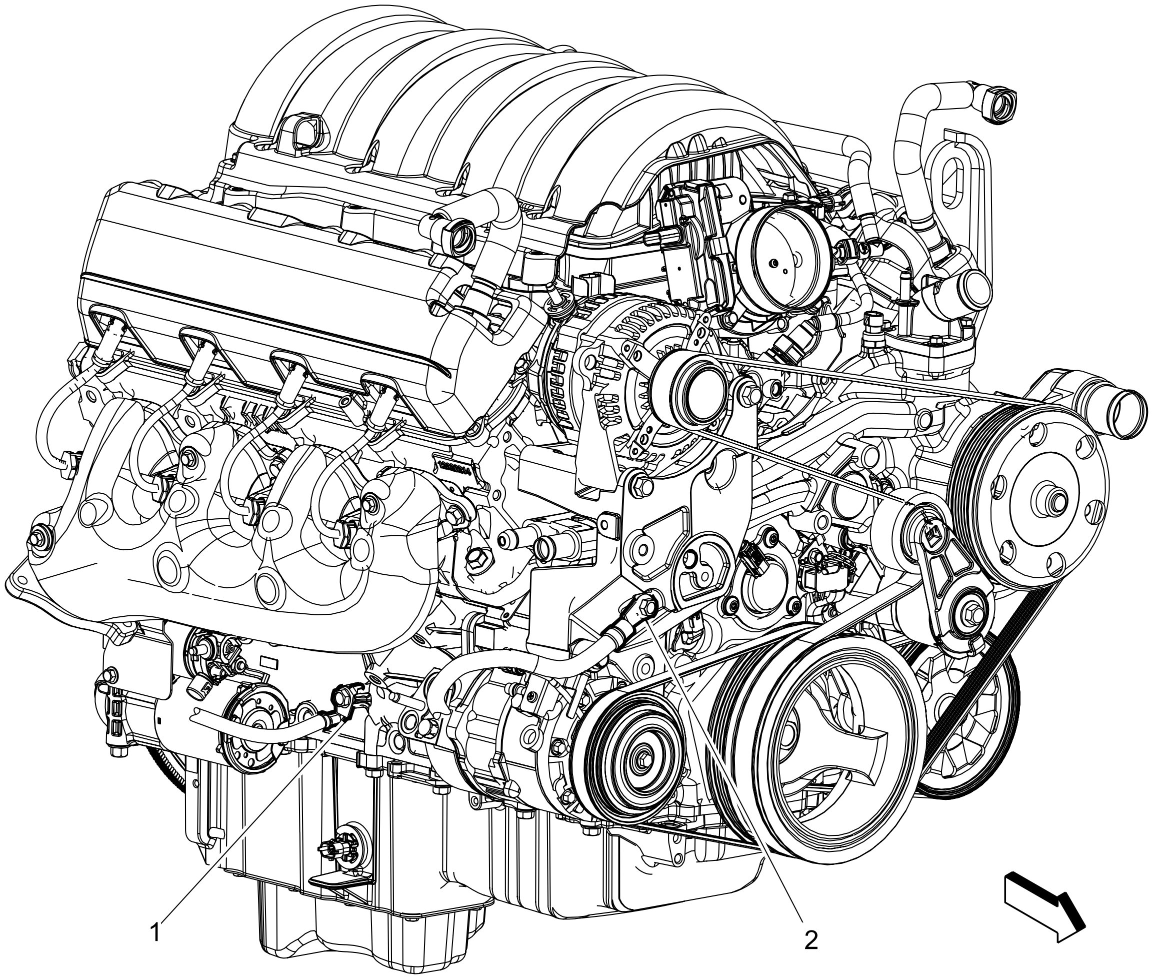
G102



Items

1. G102

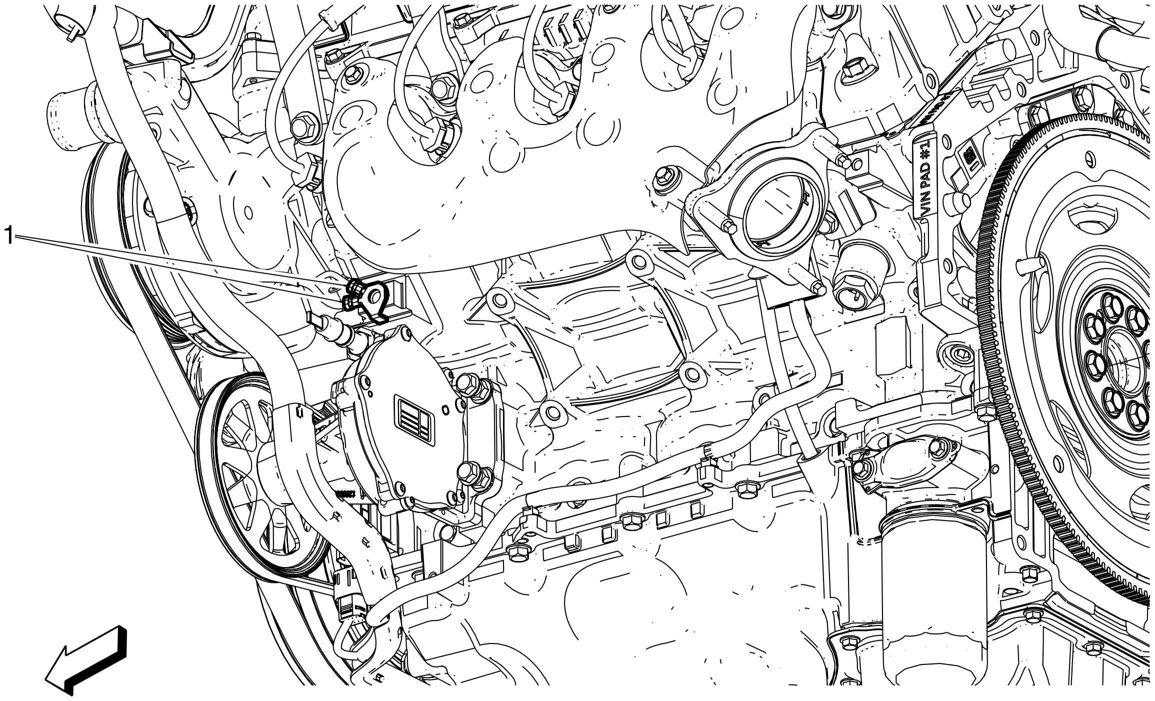
G103 and G125 (L83 or L86)



Items

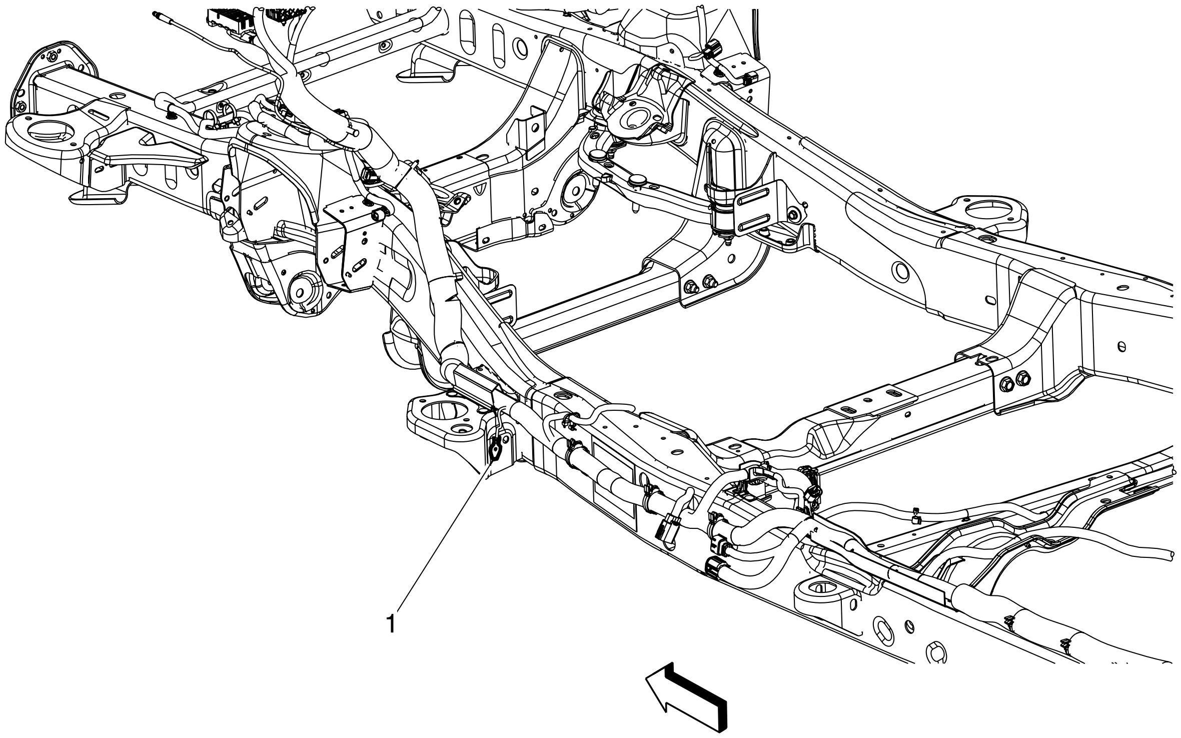
1. G103
2. G125 (L83 or L86)

G110 (L83 or L86)



Items

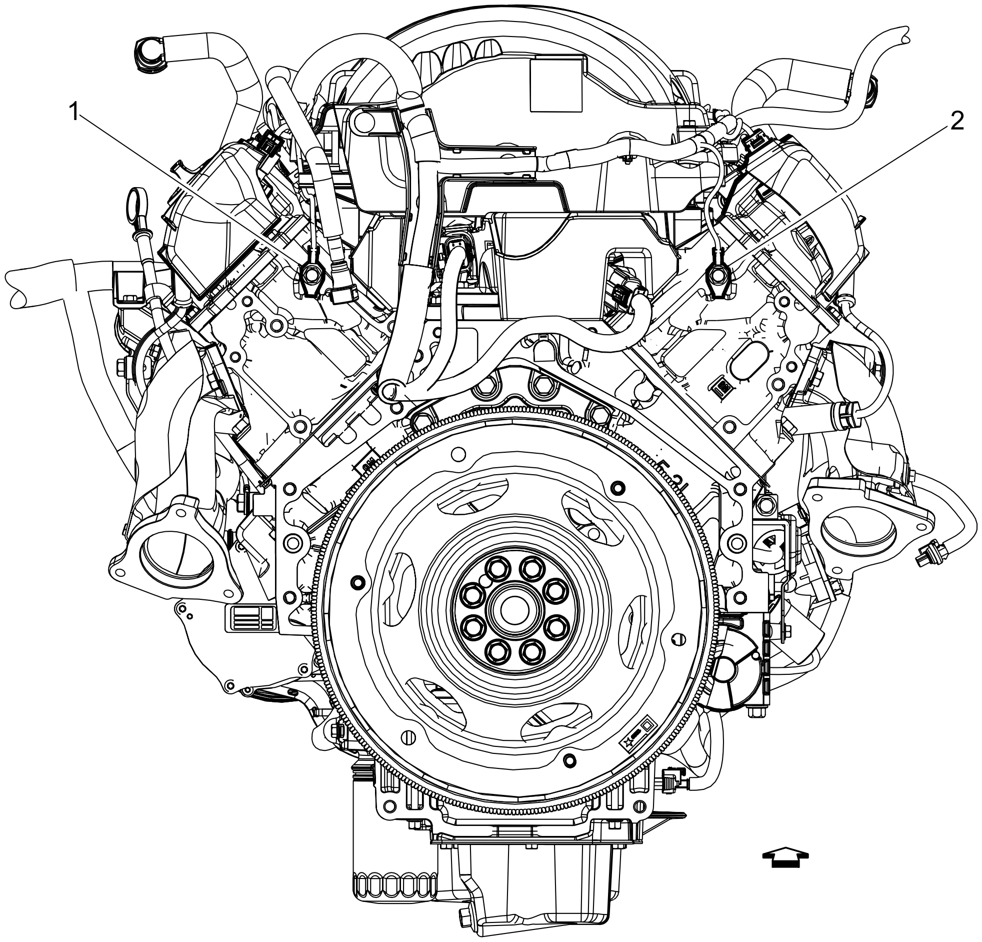
1. G110



Items

1. G121

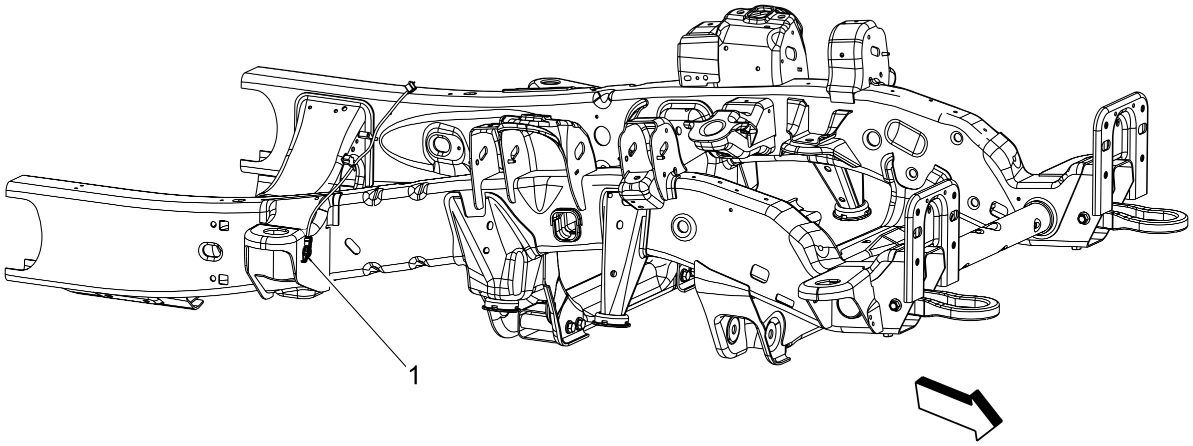
G130 and G140 (L83 or L86)



Items

1. G130 (L83 or L86)
2. G140 (L83 or L86)

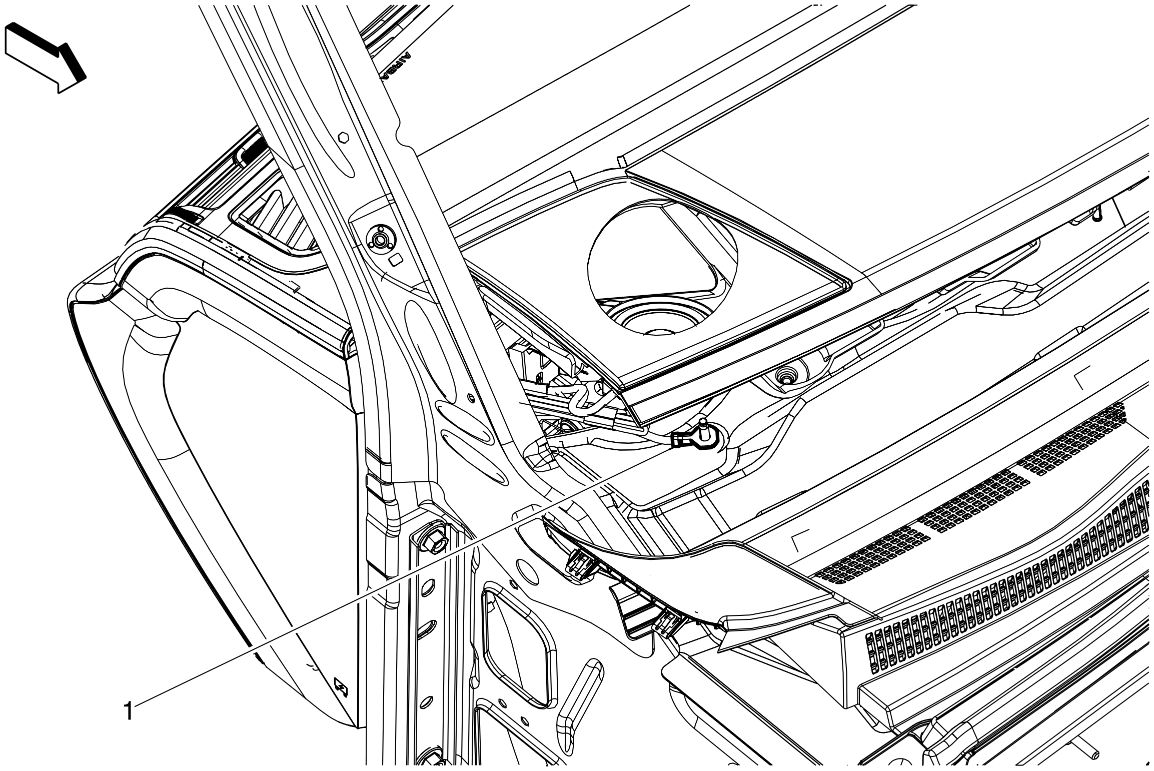
G141 (L83 or L86)



Items

1. G141 (L83 or L86)

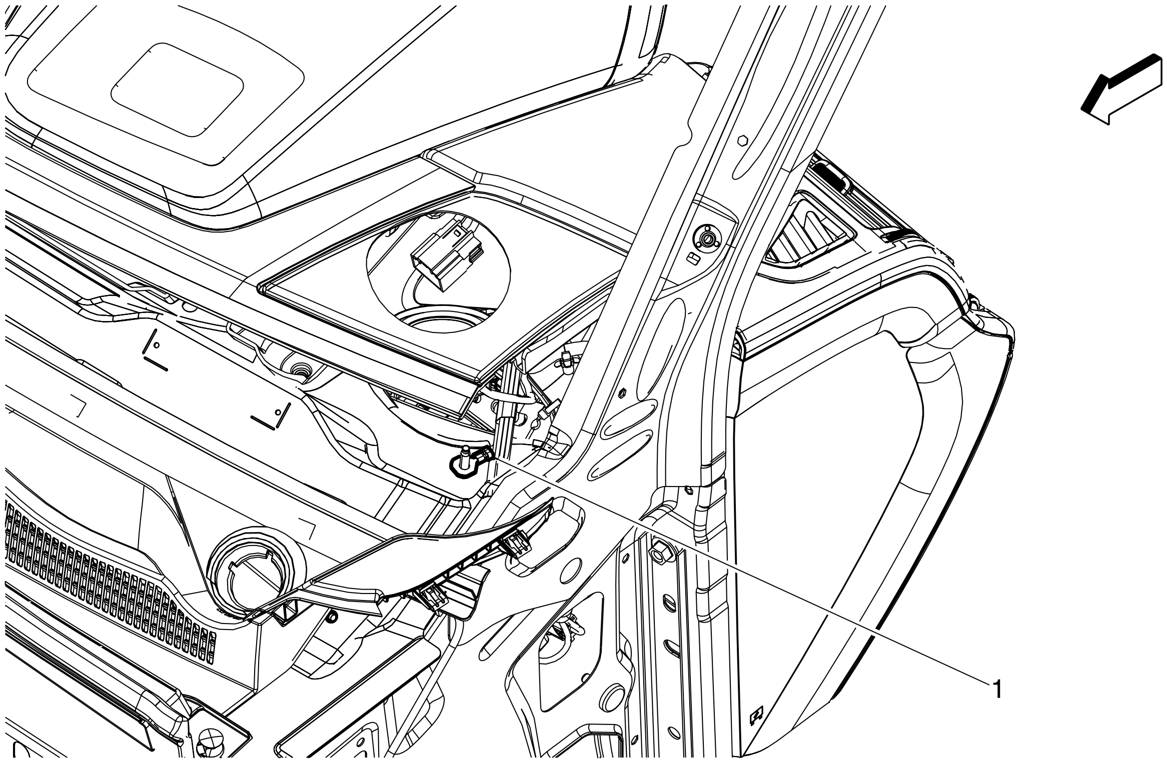
G210



Items

1. G210

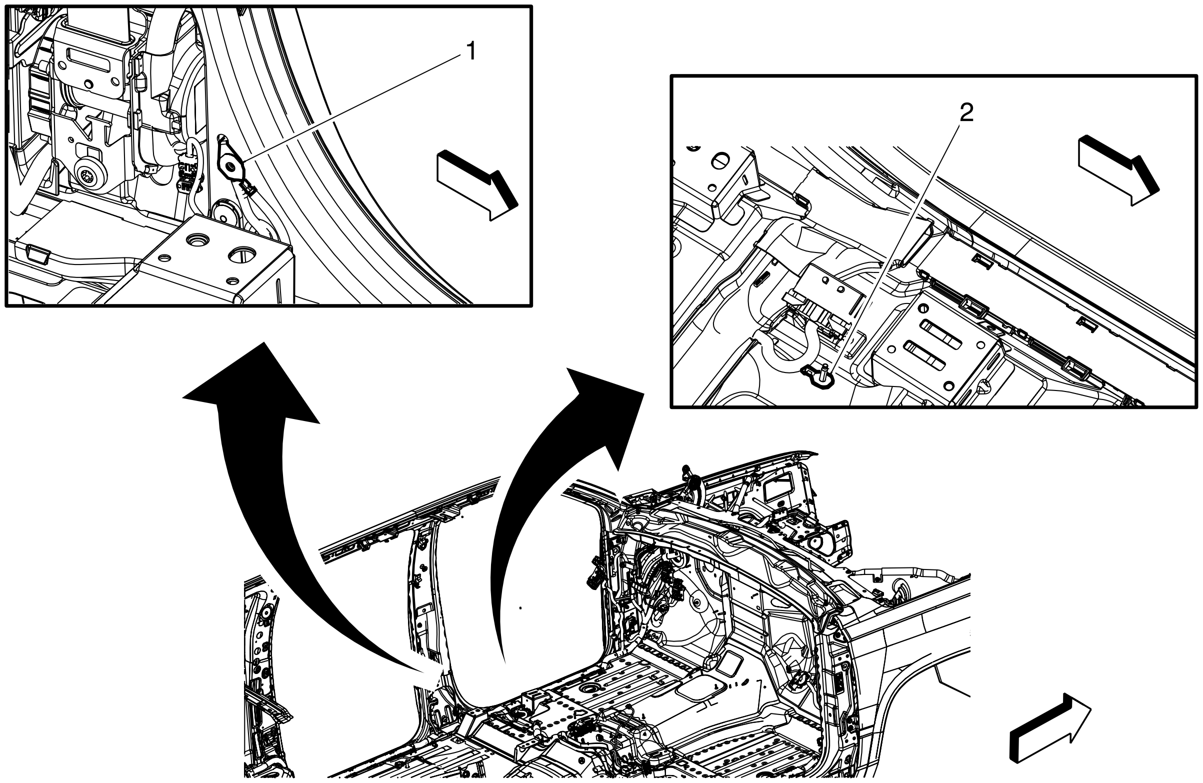
G218



Items

1. G218

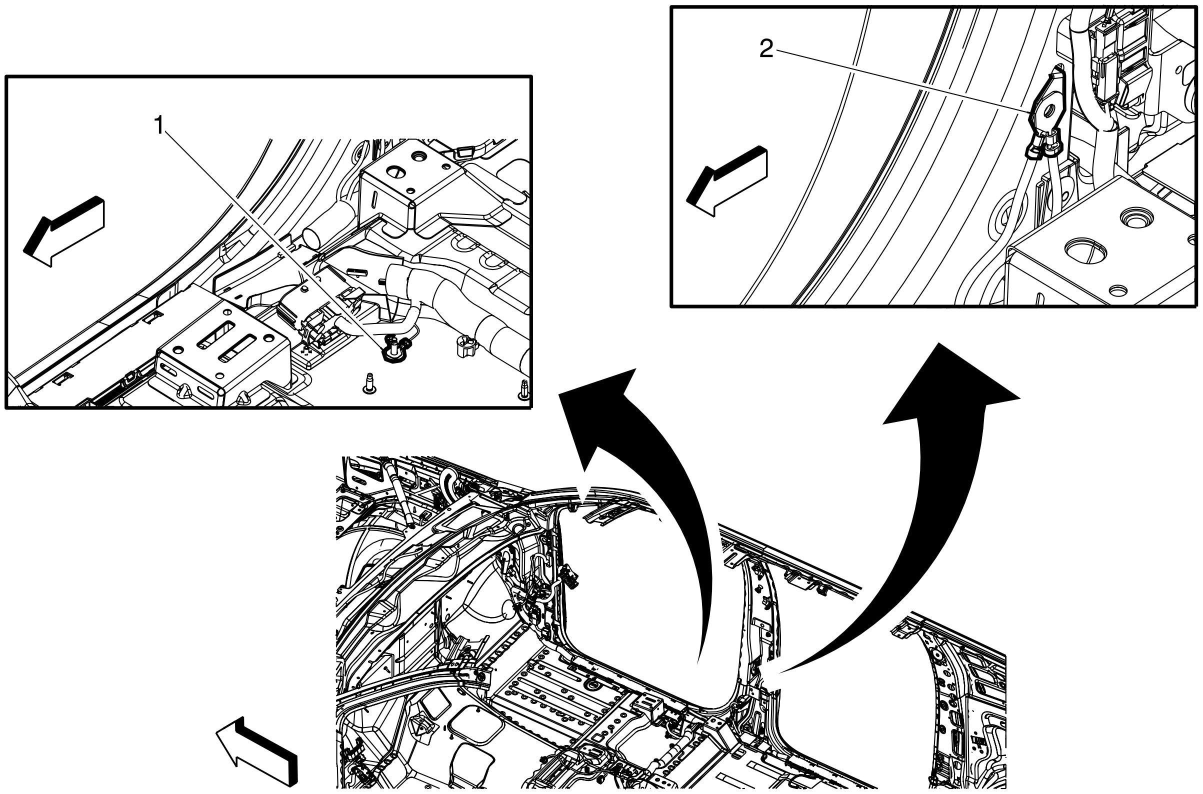
G311 and G325



Items

1. G311
2. G325

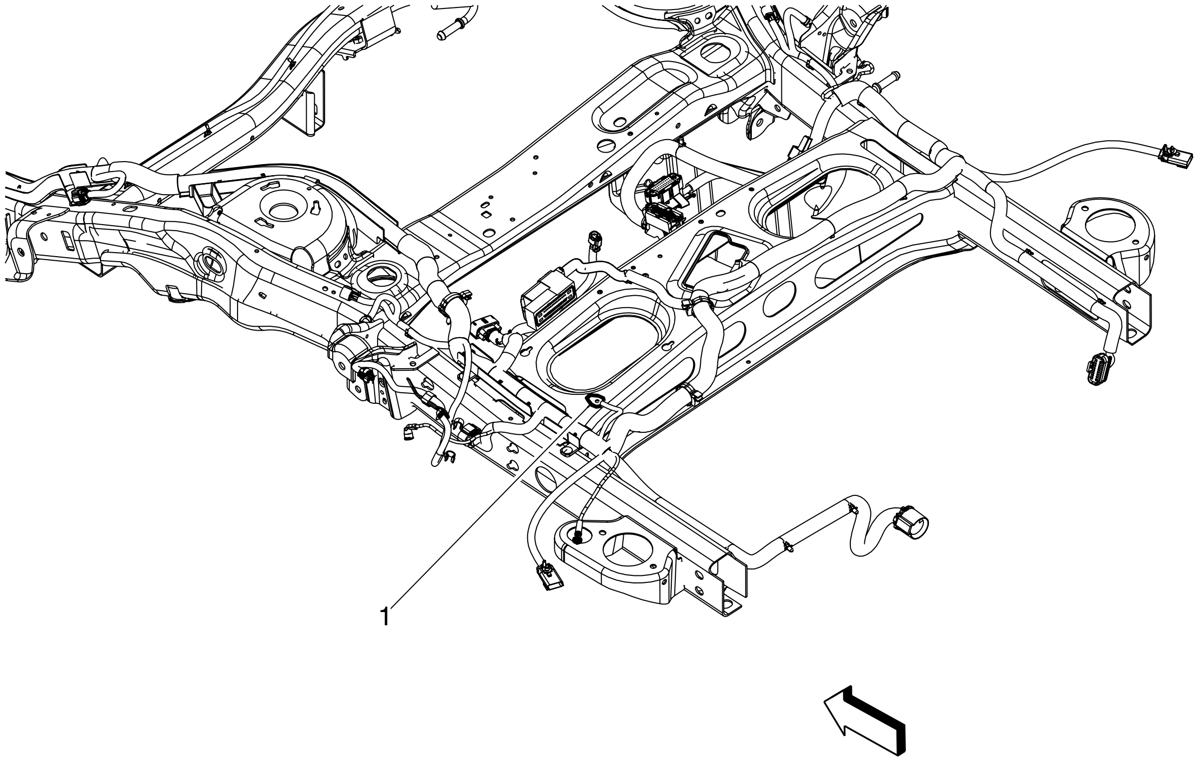
G312 and G327



Items

1. G327
2. G312

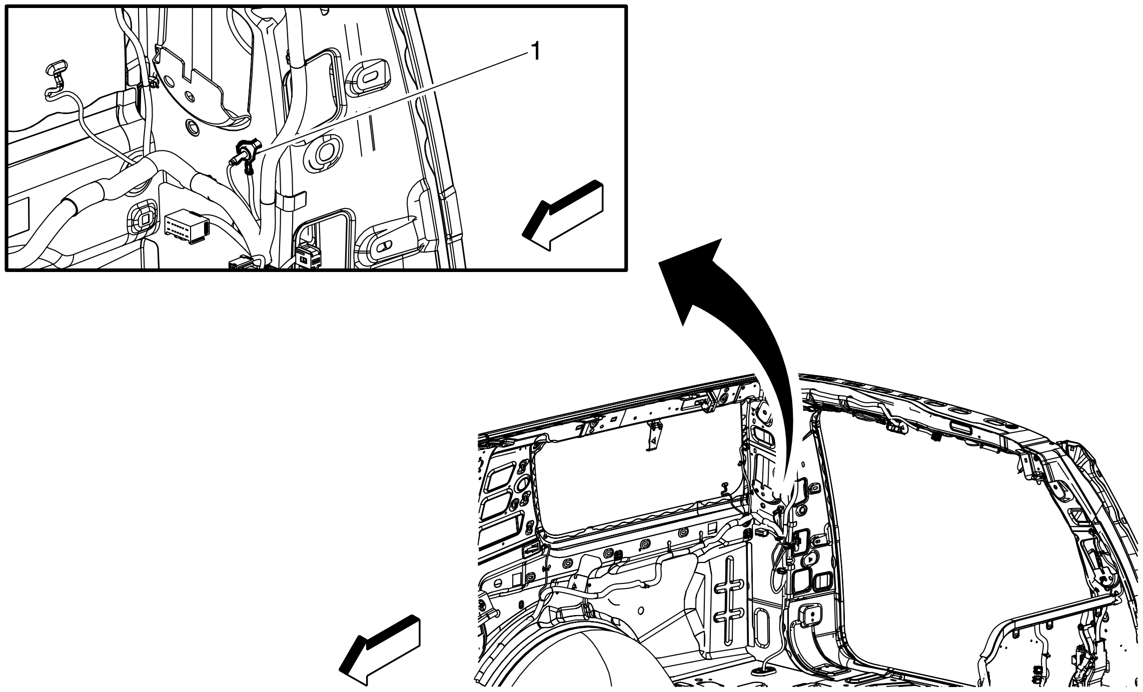
G400



Items

1. G400

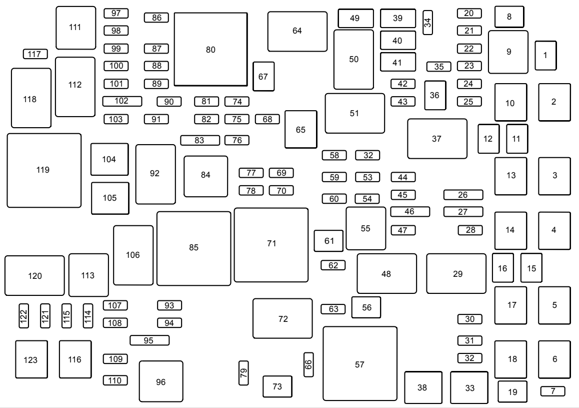
G402



Items

1. G402

X50A Fuse Block - Underhood Label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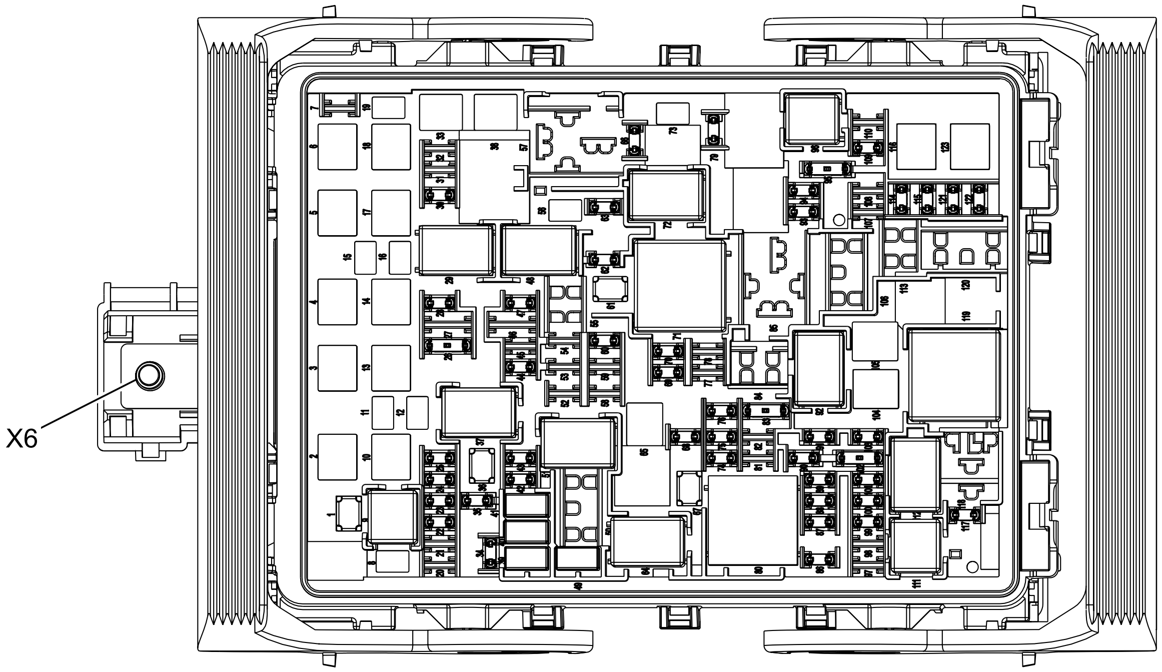
1	30A ELEC RNG BDS
2	60A ABS PUMP
3	60A INT BEC LT1
4	40A MSB PASS
5	40A SUSP LEVELING CMPRSR
6	30 4WD TREC
9	FUEL PUMP RLY
10	40A ELEC PRK BRK
13	60A INT BEC LT2
14	60A REAR BEC1
17	40A MSB DRVR
21	15A ALC EXH SOL
22	20A FUEL PUMP
23	10A ICCM
24	30A RTD
25	30A FPPM
26	AHA_RVC
28	30A UPFIT 2
29	UPFIT 2 RLY
30	25A WPR
31	25A TIM
34	10A BCK UP LP
35	25A ABS VLV
36	30A TRLR BRK
37	UPFIT 3 RLY
39	10A TRLR STOP TRN RT
40	10A TRKR STOP TRB LT
41	20A PRK LP TRLR
42	15A PRK LP RT
43	15A PRK LP LT
44	30A UPFIT 3
45	10A ALC RUN/CRANK
47	30A UPFIT 4
48	UPFIT 4 RLY
49	10A REV LP
51	PRK LP RLY
59	20A EURO TRLR
60	10A A/C CONTRL
63	30A UPFIT 1
64	SEC FUEL PUMP RLY
67	30A TRLR BATT
69	5A RC UPFIT 3 & 4
70	5A VBAT UPFIT 3 & 4
72	UPFIT 1 RLY
74	15A ECM IGN
75	10A MISC IGN SPARE
76	15A TRANS IGN
77	5A RC UPFIT 1 & 2
78	5A VBAT UPFIT 1 & 2
83	10A EURO TRLR RC
84	RUN/CRNK RLY
87	15A ENG
88	20A INJ A ODD
89	20A INJ B EVEN
90	15A O2 B SNSR
91	15A THROT CONT
92	ECM RELAY
93	15A HORN
94	15A FOG LP
95	10A LT/RT HI BEAM
100	15A O2 A SNSR
101	30A ECM
102	15A ECM/TCM
103	10A INT HTR AUX
104	40A STRTR
107	10A AERO SHUTTER
109	10A POLICE UPFIT
112	STRTR RLY
114	15A FRT WSW
115	15A RR WSW
116	40A COOL FAN LT
121	20A RT HID
122	20A LT HID
123	40A COOL FAN RT

X50A Fuse Block - Underhood Top View



X50A Fuse Block - Underhood Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	ELEC RNG BDS	F1UA	30A	K4 Assist Step Control Module
2	ABS PUMP	F2UA	60A	K17 Electronic Brake Control Module
3	INT BEC LT1	F3UA	60A	X51L Fuse Block - Instrument Panel Left
4	MSB PASS	F4UA	40A	M101R Seat Belt Retractor Motor Module - Right (AX7)
5	SUSP LEVELING CMPRSR	F5UA	40A	KR98 Vehicle Level Control Compressor Relay (Z85 or Z95)
6	4WD TREC	F6UA	30A	A16 Transfer Case Motor (NP0 or NQH), K69 Transfer Case Control Module (NP0 or NQH)
7	-	F7UA	-	Not Used
8	-	F8UA	-	Not Used
10	ELEC PRK BRK	F10UA	40A	K83 Parking Brake Control Module (J71)
11	-	F11UA	-	Not Used
12	-	F12UA	-	Not Used
13	INT BEC LT2	F13UA	60A	X51L Fuse Block - Instrument Panel Left
14	REAR BEC1	F14UA	60A	X53A Fuse Block - Rear Body
15	-	F15UA	-	Not Used

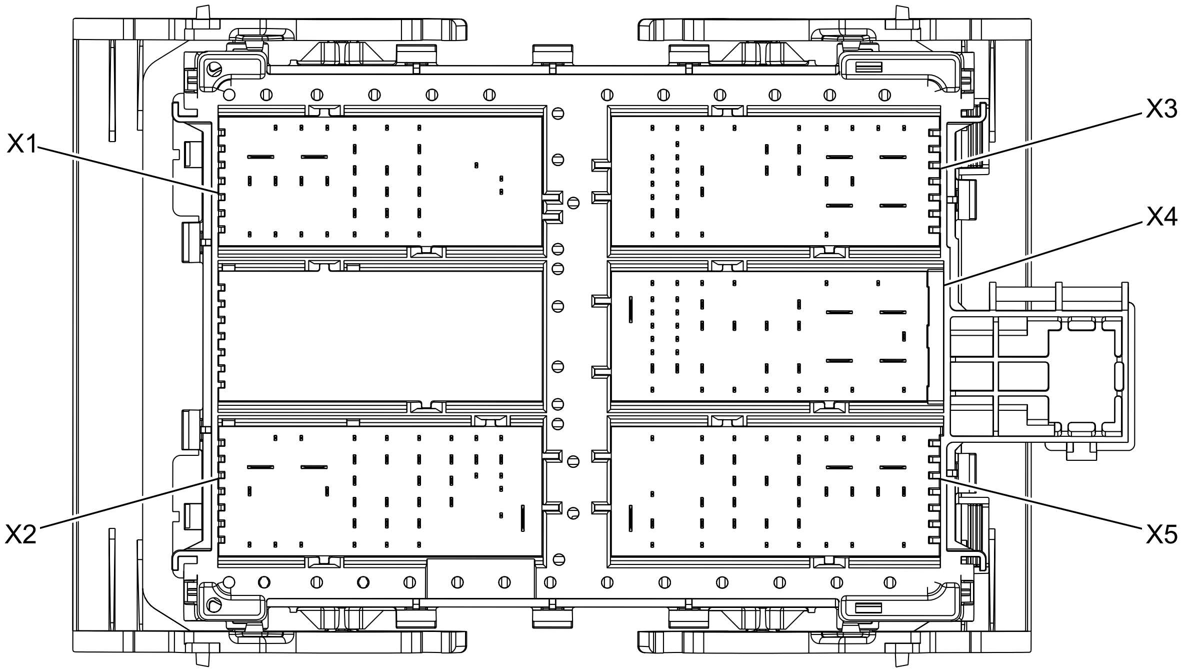
15	-	F15UA	-	Not Used
16	-	F16UA	-	Not Used
17	MSB DRVR	F17UA	40A	M101L Seat Belt Retractor Motor Module - Left (AX7)
18	-	F18UA	-	Not Used
19	-	F19UA	-	Not Used
20	-	F20UA	-	Not Used
21	ALC EXH SOL	F21UA	15A	Q4 Vehicle Level Control Solenoid Valve (Z85)
22	FUEL PUMP	F22UA	20A	KR23A Fuel Pump Relay (L96), A7 Fuel Pump and Level Sensor Assembly (L96)
23	ICCM	F23UA	10A	K38 Chassis Control Module (JL1 or Z85)
24	RTD	F24UA	30A	K19 Suspension Control Module (Z95)
25	FPPM	F25UA	30A	K111 Fuel Pump Driver Control Module (L83 or L86)
26	AHA_RVC	F26UA	5A	K9 Body Control Module
27	-	F27UA	-	Not Used
28	UPFIT 2	F28UA	30A	W9 Blunt Cut - Police Provision (5W4 or 9C1)
30	WPR	F30UA	25A	KR12B Windshield Wiper Relay, KR12C Windshield Wiper Speed Control Relay
31	TIM	F31UA	25A	K101 Trailer Interface Control Module (VQ9)
32	-	F32UA	-	Not Used
33	-	F33UA	-	Not Used
34	BCK UP LP	F34UA	10A	A10 Inside Rearview Mirror (DD8), B87 Rearview Camera (DD8 without UVH), E5A Backup Lamp - Left, E5B Backup Lamp - Right
35	ABS VLV	F35UA	25A	K17 Electronic Brake Control Module
36	TRLR BRK	F36UA	30A	K67 Trailer Brake Control Module (JL1), W24 Blunt Cut Trailer Brakes Provision (without JL1)
38	-	F38UA	-	Not Used
39	TRLR STOP TRN RT	F39UA	10A	X88 Trailer Connector
40	TRLR STOP TRN LT	F40UA	10A	X88 Trailer Connector
41	PRK LP TRLR	F41UA	20A	X88 Trailer Connector
42	PRK LP RT	F42UA	15A	E2RF Side Marker Lamp - Right Front (X88 or Z88), E4K Park Lamp - Right Front (without Y91 or Z75), E5F Tail Lamp - Right (Z75 or Z88), E13RA Headlamp Assembly - Right (Z75), E42R Tail Lamp Assembly - Right (X88), E69R Multifunction Lamp Assembly - Front Fascia Right (Z75)
43	PRK LP LT	F43UA	15A	E2LF Side Marker Lamp - Left Front (X88 or Z88), E4J Park Lamp - Left Front (without Y91 or Z75), E5E Tail Lamp - Left (Z75 or Z88), E13LA Headlamp Assembly - Left (Z75), E42L Tail Lamp Assembly - Left (X88), E69L Multifunction Lamp Assembly - Front Fascia Left (Z75)
44	UPFIT 3	F44UA	30A	W9 Blunt Cut - Police Provision (5W4 or 9C1)
45	ALC RUN/CRANK	F45UA	10A	KR98 Vehicle Level Control Compressor Relay (Z85)

46	-	F46UA	-	Not Used
47	UPFIT 4	F47UA	30A	W9 Blunt Cut - Police Provision (5W4 or 9C1)
49	REV LP	F49UA	10A	X88 Trailer Connector
52	-	F52UA	-	Not Used
53	-	F53UA	-	Not Used
54	-	F54UA	-	Not Used
56	-	F56UA	-	Not Used
58	-	F58UA	-	Not Used
59	EURO TRLR	F59UA	20A	W8 Blunt Cut - Trailer Provision (VQ9)
60	A/C CONTRL	F60UA	10A	KR29 A/C Compressor Clutch Relay
61	-	F61UA	-	Not Used
62	-	F62UA	-	Not Used
63	UPFIT 1	F63UA	30A	W9 Blunt Cut - Police Provision (5W4 or 9C1)
65	-	F65UA	-	Not Used
66	-	F66UA	-	Not Used
67	TRLR BATT	F67UA	30A	X88 Trailer Connector
68	SEC FUEL PUMP	F68UA	20A	KR23B Fuel Pump Relay - Secondary (L96), A6D Fuel Pump and Level Sensor Assembly - Secondary (L96)
69	RC UPFIT 3 & 4	F69UA	5A	KR161C Configurable Provision Relay 3 (5W4 or 9C1), KR161D Configurable Provision Relay 4 (5W4 or 9C1)
70	VBAT UPFIT 3 & 4	F70UA	5A	KR161C Configurable Provision Relay 3 (5W4 or 9C1), KR161D Configurable Provision Relay 4 (5W4 or 9C1)
73	-	F73UA	-	Not Used
74	ECM IGN	F74UA	15A	K20 Engine Control Module, K38 Chassis Control Module, K111 Fuel Pump Control Module (L83 or L86)
75	MISC IGN SPARE	F75UA	10A	W9 Blunt Cut - Police Provision (5W4 or 9C1)
76	TRANS IGN	F76UA	15A	K71 Transmission Control Module, Front Axle Engagement Actuator (NP0 or NQH)
77	RC UPFIT 1 & 2	F77UA	5A	KR161A Configurable Provision Relay 1 (5W4 or 9C1), KR161B Configurable Provision Relay 2 (5W4 or 9C1)
78	VBAT UPFIT 1 & 2	F78UA	5A	KR161A Configurable Provision Relay 1 (5W4 or 9C1), KR161B Configurable Provision Relay 2 (5W4 or 9C1)
79	-	F79UA	-	Not Used
81	-	F81UA	-	Not Used
82	-	F82UA	-	Not Used

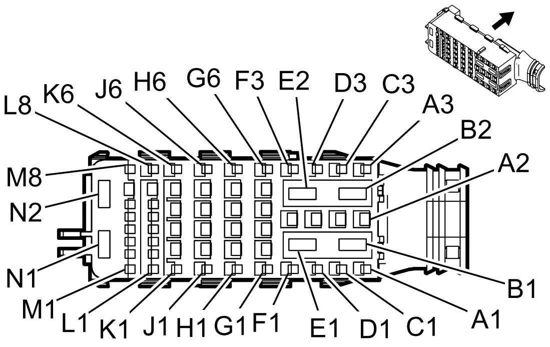
82	-	F82UA	-	Not Used
83	EURO TRLR RC	F83UA	10A	K101 Trailer Interface Control Module (VQ9)
86	-	F86UA	-	Not Used
87	ENG	F87UA	15A	B75C Multifunction Intake Air Sensor, B198 Fuel Composition Sensor (without L96 or Z75)
88	INJ A ODD	F88UA	20A	K20 Engine Control Module (L83 or L86), Q17A Fuel Injector 1 (L96), Q17C Fuel Injector 3 (L96), Q17E Fuel Injector 5 (L96), Q17G Fuel Injector 7 (L96), T8A Ignition Coil 1, T8C Ignition Coil 3, T8E Ignition Coil 5, T8G Ignition Coil 7
89	INJ B EVEN	F89UA	20A	K20 Engine Control Module (L83 or L86), Q17B Fuel Injector 2 (L96), Q17D Fuel Injector 4 (L96), Q17F Fuel Injector 6 (L96), Q17H Fuel Injector 8 (L96), T8B Ignition Coil 2, T8D Ignition Coil 4, T8F Ignition Coil 6, T8H Ignition Coil 8
90	O2 B SNSR	F90UA	15A	B52D Heated Oxygen Sensor - Bank 1 Sensor 2, B52F Heated Oxygen Sensor - Bank 2 Sensor 2
91	THROT CONT	F91UA	15A	K20 Engine Control Module (L96), M60A Active Grille Air Shutter 1 Motor Module (Z75), M60B Active Grille Air Shutter 2 Motor Module (Z75)
93	HORN	F93UA	15A	P12 Horn
94	FOG LP	F94UA	15A	E29LF Fog Lamp - Left Front (T3U), E29RF Fog Lamp - Right Front (T3U)
95	LT/RT HI BEAM	F95UA	10A	E4E Headlamp - Left High Beam (X88 or Z88), E4F Headlamp - Right High Beam (X88 or Z88), E13LA Headlamp Assembly - Left (Z75), E13RA Headlamp Assembly - Right (Z75)
97	-	F97UA	-	Not Used
98	-	F98UA	-	Not Used
99	-	F99UA	-	Not Used
100	O2 A SNSR	F100UA	15A	B52C Heated Oxygen Sensor - Bank 1 Sensor 1, B52E Heated Oxygen Sensor - Bank 2 Sensor 1, Q12 Evaporative Emission Purge Solenoid Valve, Q43 Valve Lifter Oil Manifold Assembly (L83 or L86), Q44 Engine Oil Pressure Control Solenoid Valve (L83 or L86)
101	ECM	F101UA	30A	K20 Engine Control Module (L83 or L86)
102	ECM/TCM	F102UA	15A	K20 Engine Control Module, K71 Transmission Control Module
103	INT HTR AUX	F103UA	10A	KR79 Auxiliary Battery Relay 2 (5W4 or 9C1), KR81 Auxiliary Battery Relay 1 (5W4 or 9C1)
104	STRTR	F104UA	40A	KR27 Starter Relay
105	-	F105UA	-	Not Used
107	AERO SHUTTER	F107UA	10A	Not Used
108	-	F108UA	-	Not Used
109	POLICE UPFIT	F109UA	10A	X122 Forward Lamp Harness to Forward Lamp Harness (6J7)
110	-	F110UA	-	Not Used
114	FRT WSW	F114UA	15A	G24 Windshield Washer Pump
115	RR WSW	F115UA	15A	G19 Rear Window Washer Pump
116	COOL FAN LT	F116UA	40A	G10L Cooling Fan Motor - Left
117	-	F117UA	-	Not Used

121	RT HID	F121UA	20A	T7R Headlamp Ballast - Right (T4F)
122	LT HID	F122UA	20A	T7L Headlamp Ballast - Left (T4F)
123	COOL FAN RT	F123UA	40A	G10R Cooling Fan Motor - Right
9	FUEL PUMP RLY	KR23A Fuel Pump Relay	-	A7 Fuel Pump and Level Sensor Assembly (L96)
29	UPFIT 2 RLY	KR161B Configurable Provision Relay 2	-	F28UA
37	UPFIT 3 RLY	KR161C Configurable Provision Relay 3	-	F44UA
48	UPFIT 4 RLY	KR161D Configurable Provision Relay 4	-	F47UA
50	-	-	-	Not Used
51	PRK LP RLY	KR53 Park Lamps Relay	-	F41UA, F42UA, F43UA
55	-	-	-	Not Used
57	-	-	-	Not Used
64	SEC FUEL PUMP RLY	KR23B Fuel Pump Relay — Secondary	-	A6D Fuel Pump and Level Sensor Assembly — Secondary (L96)
71	-	-	-	Not Used
72	UPFIT 1 RLY	KR161A Configurable Provision Relay 1	-	F63UA
80	-	-	-	Not Used
84	RUN/CRNK RLY	KR73 Ignition Main Relay	-	F45UA (Z85), F69UA, F74UA, F76UA, F77UA, F107UA
85	-	-	-	Not Used
92	ECM RLY	KR75 Engine Controls Ignition Relay	-	F87UA, F88UA, F89UA, F90UA, F100UA, F101UA, KR29 A/C Compressor Clutch Relay
96	-	-	-	Not Used
106	-	-	-	Not Used
111	-	-	-	Not Used
112	STRTR RLY	KR27 Starter Relay	-	M64 Starter Motor
113	-	-	-	Not Used
118	-	-	-	Not Used
119	-	-	-	Not Used
120	-	-	-	Not Used

-	-	KR3 Horn Relay	-	F93UA
-	-	KR6 Rear Window Washer Pump Relay	-	F115UA
-	-	KR11 Windshield Washer Pump Relay	-	F114UA
-	-	KR12B Windshield Wiper Relay	-	KR12C Windshield Wiper Speed Control Relay
-	-	KR12C Windshield Wiper Speed Control Relay	-	M75 Windshiled Wiper Motor
-	-	KR29 A/C Compressor Clutch Relay	-	Q2 A/C Compressor Clutch
-	-	KR46 Front Fog Lamp Relay	-	F94UA (T3U)
-	-	KR48 Headlamp High Beam Relay	-	F95UA
-	-	KR49 Headlamp Low Beam Relay	-	F121UA (T4F), F122UA (T4F)
-	-	KR61 Trailer Backup Lamps Relay	-	F34UA, F49UA
-	-	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	-	F40UA
-	-	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	-	F39UA
TP1	-	TP1	-	KR29 A/C Compressor Clutch Relay
TP2	-	TP2	-	KR12C Windshield Wiper Speed Control Relay


X1
X2
X3
X4
X5

X50A Fuse Block - Underhood X1



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 33116190

Service Connector: Pending

Description: 58-Way F 1.5, 2.8, 800 Metri Pack Series (BN)

Terminal Part Information

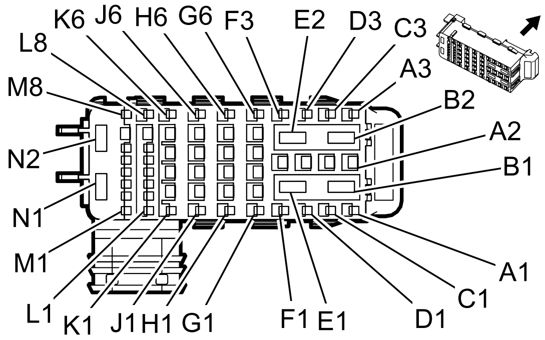
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327105	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
II	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	13580025	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	BN	3891	Aero Shutter Control	II	Z75
A2	0.75	YE	712	Left Headlamp Low Beam Supply Voltage	III	T4F
A3–B1	-	-	-	Not Occupied	-	-
B2	4	RD/GY	642	Battery Positive Voltage	I	-
C1	0.5	GY	3890	Aero Shutter Control 2	II	Z75
C2	0.75	YE	312	Right Headlamp Low Beam Supply Voltage	III	T4F
C3	-	-	-	Not Occupied	-	-
D1	0.75	YE	712	Left Headlamp Low Beam Supply Voltage	II	without T4F
D2	0.75	D-BU/VT	392	Rear Window Washer Pump Control	III	-
D3	0.75	L-GN/VT	1315	Right Front Turn Signal Lamp Supply Voltage	II	-
E1	-	-	-	Not Occupied	-	-
E2	4	RD/WH	342	Battery Positive Voltage	I	-

F1	0.5	GY/BN	309	Right Park Lamp Supply Voltage	II	without Y91 or Z75
	0.5	GY/BN	309	Right Park Lamp Supply Voltage		without Y91 or Z75
F2	0.75	GY/VT	228	Windshield Washer Pump Control	III	-
F3	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage	II	-
G1	0.5	VT/GY	709	Left Park Lamp Supply Voltage	II	without Y91 or Z75
	0.5	VT/GY	709	Left Park Lamp Supply Voltage		without Y91 or Z75
G2	0.5	WH/PU	4333	Aero Shutter Actuator Supply Voltage	III	Z75
G3	-	-	-	Not Occupied	-	-
G4	0.75	BK	150	Ground	III	-
G5	0.75	RD/D-BU	3940	Battery Positive Voltage	IV	6J7
G6	-	-	-	Not Occupied	-	-
H1	0.5	YE/GY	57	Left Cornering Lamp Supply Voltage	II	Z75
H2	0.75	GY/D-BU	7538	Left Front DRL Supply Voltage	III	Z88 or X88 with Y91
H3	0.75	D-BU/BN	7539	Right Front DRL Supply Voltage	III	Z75
H4	0.5	WH	311	Right Headlamp High Beam Supply Voltage	III	-
H5	-	-	-	Not Occupied	-	-
H6	0.75	D-BU/BN	7539	Right Front DRL Supply Voltage	II	Z88 or X88 with Y91
J1	0.5	YE/WH	58	Right Cornering Lamp Supply Voltage	II	Z75
J2	0.75	BN/GY	29	Horn Control	III	-
J3	0.5	BN/VT	2234	Front Fog Lamp Supply Voltage	III	T3U
J4	0.5	WH	711	Left Headlamp High Beam Supply Voltage	III	-
J5	0.75	YE	312	Right Headlamp Low Beam Supply Voltage	III	without T4F
J6	0.75	GY/D-BU	7538	Left Front DRL Supply Voltage	II	Z75
K1-M3	-	-	-	Not Occupied	-	-
M4	0.5	WH/D-BU	3203	Right Headlamp Bulb Outage Signal	II	Z88
M5	0.5	D-BU/VT	3204	Left Headlamp Bulb Outage Signal	II	Z88
M6-N2	-	-	-	Not Occupied	-	-

X50A Fuse Block - Underhood X2



Connector Part Information

Harness Type: Engine

OEM Connector: 13967717

Service Connector: 19329459

Description: 58-Way F 1.5, 2.8, 800 Metri Pack Series (GN)

Terminal Part Information

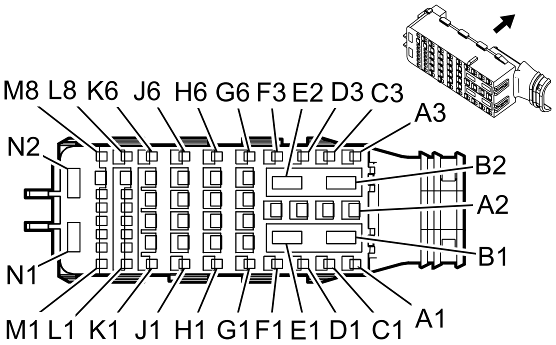
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	13327105	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
III	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	-
A2–B2	-	-	-	Not Occupied	-	-
C1	0.75	BN/L-GN	59	A/C Compressor Clutch Supply Voltage	I	-
C2–D2	-	-	-	Not Occupied	-	-
D3	0.5	YE/BK	625	Starter Enable Relay Control	I	-
E1	-	-	-	Not Occupied	-	-
E2	4	YE	6	Starter Solenoid Crank Voltage	II	-
F1	-	-	-	Not Occupied	-	-
F2	2.5	BK	550	Ground	III	-
F3–G2	-	-	-	Not Occupied	-	-
G3	0.5	VT/D-BU	5293	Powertrain Main Relay Fused Supply (4)	III	-
G4	2.5	VT/D-BU	5290	Powertrain Main Relay Fused Supply (1)	III	-
G5	0.75	RD/L-GN	1840	Battery Positive Voltage	III	-

G6	0.5	RD/WH	3440	Battery Positive Voltage	I	5W4 or 9C1
H1	-	-	-	Not Occupied	-	-
H2	0.75	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)	III	-
H3	0.75	VT/D-BU	5293	Powertrain Main Relay Fused Supply (4)	III	-
H4	-	-	-	Not Occupied	-	-
H5	0.5	RD/BN	440	Battery Positive Voltage	III	-
H6	0.5	YE	5991	Powertrain Relay Coil Control	I	-
J1	-	-	-	Not Occupied	-	-
J2	0.5	VT/D-BU	5294	Powertrain Main Relay Fused Supply (5)	III	-
J3	0.75 0.75	VT/D-BU VT/D-BU	5291 5291	Powertrain Main Relay Fused Supply (2) Powertrain Main Relay Fused Supply (2)	III	- -
J4	0.75	VT/D-BU	5292	Powertrain Main Relay Fused Supply (3)	III	-
J5	0.5 0.5	VT/D-BU VT/D-BU	5294 5294	Powertrain Main Relay Fused Supply (5) Powertrain Main Relay Fused Supply (5)	III	- -
J6–K2	-	-	-	Not Occupied	-	-
K3	0.5	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)	III	-
K4	0.75 0.75	VT/D-BU VT/D-BU	5292 5292	Powertrain Main Relay Fused Supply (3) Powertrain Main Relay Fused Supply (3)	III	- -
K5	0.5	VT/D-BU	5292	Powertrain Main Relay Fused Supply (3)	III	-
K6–L6	-	-	-	Not Occupied	-	-
L7	0.5 0.5	VT/BK VT/BK	2139 2139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	III	NP0 or NQH NP0 or NQH
L8–M4	-	-	-	Not Occupied	-	-
M5	0.5	GY	5660	Fuel Pump Controller Data Out Signal	I	-
M6	0.75	BK/WH	451	Signal Ground	I	-
M7	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage	III	-
M8–N2	-	-	-	Not Occupied	-	-

X50A Fuse Block - Underhood X3



Connector Part Information

Harness Type: Body

OEM Connector: 13935987

Service Connector: 19329462

Description: 58-Way F 1.5, 2.8, 800 Metri Pack Series (GY)

Terminal Part Information

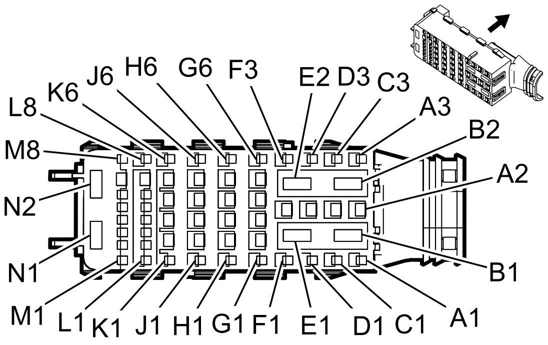
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	13575718	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
III	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	13327105	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
V	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	YE/D-BU	18	Left Rear Stop/Turn Lamp Supply Voltage	I	-
A2–A3	-	-	-	Not Occupied	-	-
B1	4 4	RD/GY RD/GY	1342 1342	Battery Positive Voltage Battery Positive Voltage	II	NP0 or NQH NP0 or NQH
B2	2.5	RD/D-BU	1842	Battery Positive Voltage	II	Z85 or Z95
C1	0.5	BN/L-GN	19	Right Rear Stop/Turn Lamp Supply Voltage	I	-
C2–C3	-	-	-	Not Occupied	-	-
D1	0.75	L-GN/VT	1315	Right Front Turn Signal Lamp Supply Voltage	I	-
D2	0.5	WH/D-BU	3203	Right Headlamp Bulb Outage Signal	III	-
D3–E1	-	-	-	Not Occupied	-	-
E2	4	RD/WH	4042	Battery Positive Voltage	IV	AX7
F1	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage	I	-

F1	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage	I	-
F2–F6	-	-	-	Not Occupied	-	-
G1	0.75	D-BU/BN	7539	Right Front DRL Supply Voltage	I	Z88 or X88 with Y91
G2–H1	-	-	-	Not Occupied	-	-
H2	1	BK	550	Ground	III	-
H3–H6	-	-	-	Not Occupied	-	-
J1	0.35	WH/VT	860	Front Windshield Wiper Switch High Signal	I	-
J2–K2	-	-	-	Not Occupied	-	-
K3	1	YE/BN	95	Windshield Wiper Motor Low Speed Control	III	-
K4	1	WH	92	Windshield Wiper Motor High Speed Control	III	-
K5	-	-	-	Not Occupied	-	-
K6	0.35	BN/GY	2268	Windshield Washer Relay Control	I	-
L1	0.75	GY/D-BU	7538	Left Front DRL Supply Voltage	I	Z75
L2	0.35	BN/VT	1969	Headlamp High Beam Relay Control	I	-
L3	0.35	L-GN/WH	2270	Rear Window Washer Relay Control	I	-
L4	0.35	GY	91	Windshield Wiper Motor Relay Coil Supply Voltage	I	-
L5	0.5	BN/WH	1317	Fog Lamp Relay Control	I	T3U
L6	0.35	BN/WH	28	Horn Relay Control	I	-
L7	-	-	-	Not Occupied	-	-
L8	0.5	YE/GY	57	Left Cornering Lamp Supply Voltage	V	Z75
M1	0.75	YE	312	Right Headlamp Low Beam Supply Voltage	I	without T4F
M2	-	-	-	Not Occupied	-	-
M3	0.5	YE/WH	58	Right Cornering Lamp Supply Voltage	V	Z75
M4	0.75	D-BU/BN	7539	Right Front DRL Supply Voltage	I	Z75
M5	0.5	D-BU/L-GN	961		I	5W4 or 9C1
M7	2.5	RD/L-GN	965		III	5W4 or 9C1
N1-N2	-	-	-	Not Occupied	-	-

X50A Fuse Block - Underhood X4



Connector Part Information

Harness Type: Body

OEM Connector: 13935986

Service Connector: 19329460

Description: 58-Way F 1.5, 2.8, 800 Metri Pack Series (BK)

Terminal Part Information

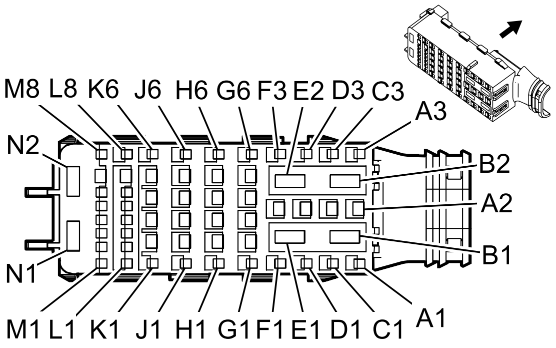
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	13327105	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
III	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	-	-	-	Not Occupied	-	-
A2	0.75	GY/YE	7542	Left Rear Stop Lamp Supply Voltage	III	-
A3	0.5	L-GN/WH	24	Backup Lamp Supply Voltage	I	-
B1	4	RD/GY	1042	Battery Positive Voltage	II	AX7
B2	5	RD/VT	842	Battery Positive Voltage	II	-
C1	0.75	WH/YE	7541	Right Rear Stop Lamp Supply Voltage	I	-
C2–D3	-	-	-	Not Occupied	-	-
E1	6	RD/WH	942		II	-
E2	5	RD/D-BU	42	Battery Positive Voltage	II	-
F1–G5	-	-	-	Not Occupied	-	-
G2	2.5	RD/L-GN	966		III	5W4 or 9C1
G6	0.5	YE/BK	5356	Left Tail Lamp Outage Detection Signal	I	Z88 or Z75
H1–H4	-	-	-	Not Occupied	-	-

H5	2.5	RD/L-GN	242	Battery Positive Voltage	III	-
H6	0.5	VT/YE	5357	Right Tail Lamp Outage Detection Signal	I	Z88 or Z75
J1	0.75	GY/D-BU	7538	Left Front DRL Supply Voltage	I	Z88 or X88 with Y91
J2–J5	-	-	-	Not Occupied	-	-
J6	0.75	BK/WH	451	Signal Ground	I	-
K1	0.75	YE	712	Left Headlamp Low Beam Supply Voltage	I	-
K2	2.5	RD/L-GN	968		III	5W4 or 9C1
K5	2.5	RD/L-GN	967		III	5W4 or 9C1
K6	0.5	VT/GY	709	Left Park Lamp Supply Voltage	I	-
L1	0.5	D-BU/L-GN	964		I	5W4 or 9C1
L2	0.35	YE/GY	5187	Right Trailer Turn Signal Lamp	I	-
L3	0.35	D-BU/BN	38	Backup Lamp Relay Control	I	-
L4	0.35	D-BU/WH	5186	Left Trailer Turn Signal Lamp	I	-
L5	0.35	D-BU	45	Park Lamp Relay Control	I	-
L6	0.5	D-BU/L-GN	963		I	5W4 or 9C1
L7–L8	-	-	-	Not Occupied	-	-
M1	0.75	RD/YE	2340	Battery Positive Voltage	I	-
M2	-	-	-	Not Occupied	-	-
M3	0.35	BN/YE	1970	Headlamp Low Beam Relay Control	I	X88 or Z88 with T4F
M4	-	-	-	Not Occupied	-	-
M5	0.35	L-GN/VT	5199	Run/Crank Relay Coil Control	I	-
M6–N2	-	-	-	Not Occupied	-	-

X50A Fuse Block - Underhood X5



Connector Part Information

Harness Type: Chassis

OEM Connector: 13935988

Service Connector: 19329445

Description: 58-Way F 1.5, 2.8, 800 Metri Pack Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13327105	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
IV	13575832	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.75	GY/YE	7542	Left Rear Stop Lamp Supply Voltage	I	-
A2	0.5	YE/D-BU	18	Left Rear Stop/Turn Lamp Supply Voltage	II	-
A3	0.5	BN/L-GN	19	Right Rear Stop/Turn Lamp Supply Voltage	I	-
B1	5	RD/YE	442	Battery Positive Voltage	III	-
B2	-	-	-	Not Occupied	-	-
C1	0.75	L-GN/WH	24	Backup Lamp Supply Voltage	I	-
C2	2.5	RD/YE	1142	Battery Positive Voltage	II	BRS
C3–D2	-	-	-	Not Occupied	-	-
D3	0.75	WH/YE	7541	Right Rear Stop Lamp Supply Voltage	I	-
E1	4	RD/WH	1642	Battery Positive Voltage	III	J71
E2–F2	-	-	-	Not Occupied	-	-
F3	0.5	GY	3890	Aero Shutter Control 2	I	Z75

G1	0.5	YE/BK	5356	Left Tail Lamp Outage Detection Signal	I	Z88
G2	2.5	RD/VT	1940	Battery Positive Voltage	II	-
G3	3	RD/L-GN	2440	Battery Positive Voltage	IV	Z95
G4	0.75	RD/WH	2040	Battery Positive Voltage	II	JL1
G5	-	-	-	Not Occupied	-	-
G6	0.75	RD/L-GN	2440	Battery Positive Voltage	I	Z85
H1	0.5	VT/YE	5357	Right Tail Lamp Outage Detection Signal	I	Z88 or Z75
H2	-	-	-	Not Occupied	-	-
H3	0.5	RD/L-GN	1840	Battery Positive Voltage	II	-
H4–H5	-	-	-	Not Occupied	-	-
H6	0.5	BN	3891	Aero Shutter Control	I	Z75
J1	-	-	-	Not Occupied	-	-
J2	2.5	RD/L-GN	242	Battery Positive Voltage	II	JL1
J3	1.5	GY/BN	2109	Trailer Park Lamp Supply Voltage	II	-
J4	2.5	RD/VT	1640	Battery Positive Voltage	II	-
J5	0.5 0.75	VT/L-GN VT/L-GN	439 439	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	II	JL1, Z75 or Z85 JL1, Z75 or Z85
J6	-	-	-	Not Occupied	-	-
K1	0.5	VT/BK	739	Run/Crank Ignition 1 Voltage	I	Z85
K2	0.5	VT/GY	709	Left Park Lamp Supply Voltage	II	-
K3	-	-	-	Not Occupied	-	-
K4	0.5	GY/BN	309	Right Park Lamp Supply Voltage	II	-
K5	0.75	YE/GY	1618	Left Rear Trailer Stop/Turn Lamp Supply Voltage	II	-
K6	0.75	L-GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Supply Voltage	I	-
L1–M4	-	-	-	Not Occupied	-	-
M5	0.5	GY	5660	Fuel Pump Controller Data Out Signal	I	-
M6	-	-	-	Not Occupied	-	-
M7	0.5	VT/D-BU	5294	Powertrain Main Relay Fused Supply (5)	II	X88 or Z88
M8	0.75	WH/L-GN	1624	Trailer Backup Lamp Supply Voltage	I	-
N1	-	-	-	Not Occupied	-	-
N2	4	RD/L-GN	742	Battery Positive Voltage	III	-

X50A Fuse Block - Underhood X6

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Connector Part Information

Harness Type: Fuse Block - Battery

OEM Connector: 13585650

Service Connector: Service by Cable Assembly — See Part Catalog

Description: Ring Terminal

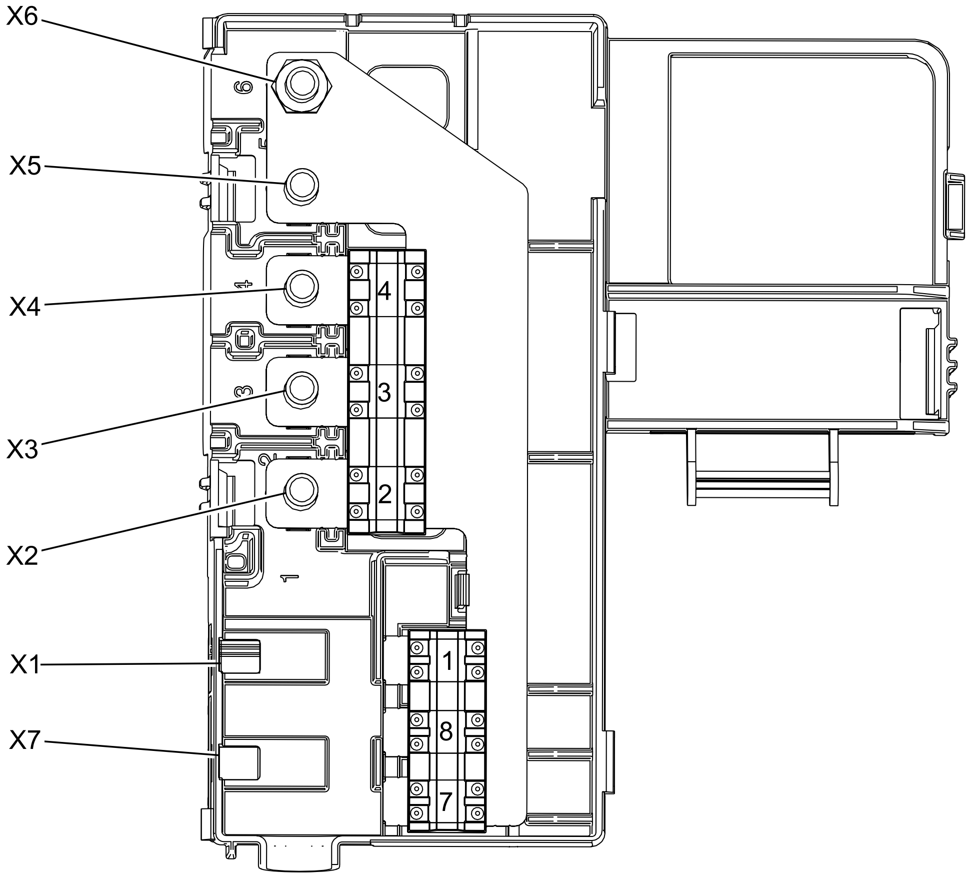
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD/GN	242	Battery Positive Voltage	I	-

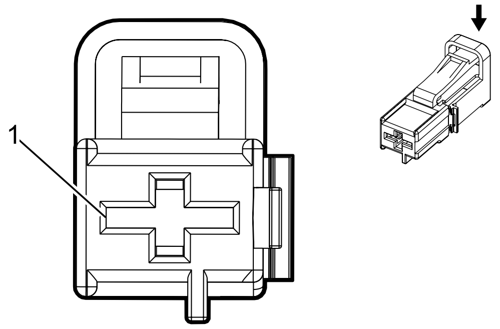
X50D Fuse Block - Battery Top View



X50D Fuse Block – Battery Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
1	-	F1UD	100A	KR79 Auxiliary Battery Relay 2 (5W4 or 9C1)
2	-	F2UD	175A (L83 or L86) 250A (L96)	G13 Generator, X50A Fuse Block - Underhood
3	-	F3UD	-	Not Occupied
4	-	F4UD	175A	K43 Power Steering Control Module (L83 or L86)
5	-	F7UD	60A	X51R Fuse Block - Instrument Panel Right
6	-	F8UD	60A	X51R Fuse Block - Instrument Panel Right

X50D Fuse Block - Battery X1 (5W4 or 9C1)



Connector Part Information

Harness Type: Battery — Auxiliary

OEM Connector: 13629098

Service Connector: 19329825

Description: 1–Way F 8.0 Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616–44 (YE)	Not Available	Not Available	Not Available	Not Available	Not Available

X50D Fuse Block - Battery X1 (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD/VT	842	Battery Positive Voltage	I	-

X50D Fuse Block - Battery X2

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Connector Part Information

Harness Type: Battery Cable

OEM Connector: 13584018

Service Connector: Service by Cable Assembly — See Part Catalog

Description: Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

X50D Fuse Block - Battery X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD/YE	2	Battery Positive Voltage	I	-
	25	RD/GN	242	Battery Positive Voltage		-

X50D Fuse Block - Battery X4

—

Connector Part Information

Harness Type: Battery Cable Jumper

OEM Connector: 13584017

Service Connector: Service by Cable Assembly — See Part Catalog

Description: Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

X50D Fuse Block - Battery X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD/VT	842	Battery Positive Voltage	I	-

X50D Fuse Block - Battery X5

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Connector Part Information

Harness Type: Fuse Block — Starter Motor

OEM Connector: 13584016

Service Connector: Service by Cable Assembly — See Part Catalog

Description: Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

X50D Fuse Block - Battery X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD/YE	2	Unfused Battery Positive Voltage	I	-

X50D Fuse Block - Battery X6

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Connector Part Information

Harness Type: Fuse Block — Battery

OEM Connector: 22806489

Service Connector: Service by Cable Assembly — See Part Catalog

Description: Ring Terminal

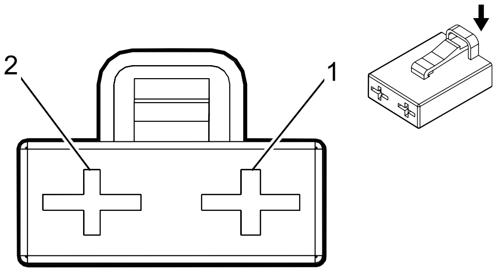
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

X50D Fuse Block - Battery X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD	1	Unfused Battery Positive Voltage	I	-

X50D Fuse Block - Battery X7



Connector Part Information

Harness Type: Body

OEM Connector: 13627842

Service Connector: 19329484

Description: 2-Way F 8.0 Series (BU)

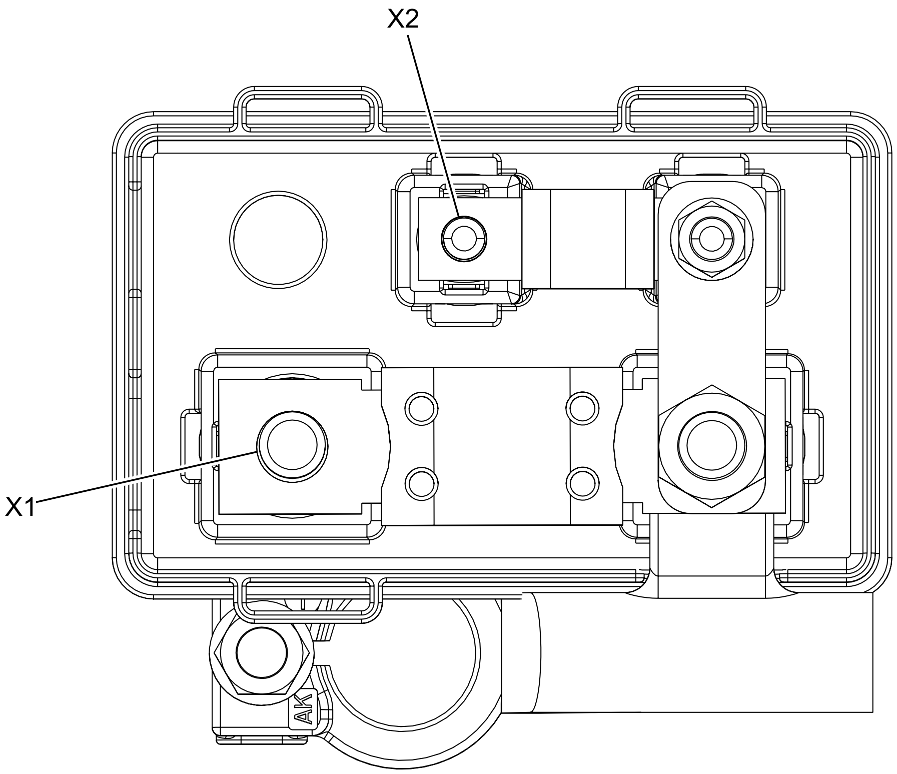
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-44 (YE)	Not Available	Not Available	Not Available	Not Available	Not Available

X50D Fuse Block - Battery X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	6	RD/GY	142	Battery Positive Voltage	I	-
2	6	RD/L-GN	242	Battery Positive Voltage	I	-

X50E Fuse Block - Battery Auxiliary Top View (5W4 or 9C1)



X50E Fuse Block – Battery Auxiliary Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
1	—	F1UE	100A	KR81 Auxiliary Battery Relay 1, X53A Fuse Block — Rear Body
2	—	F2UE	50A	W9 Blunt Cut — Police Provision

X50E Fuse Block - Auxiliary Battery X1 (5W4 or 9C1)

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Connector Part Information

Harness Type: Body

OEM Connector: 13609633

Service Connector: Not Available

Description: Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

X50E Fuse Block - Auxiliary Battery X1 (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD/GN	742	Battery Positive Voltage	I	—
	10	YE/BU	5442	Battery Positive Voltage		—

X50E Fuse Block - Auxiliary Battery X2 (5W4 and 9C1)

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Connector Part Information

Harness Type: Body

OEM Connector: 12103517

Service Connector: Not Available

Description: Ring Terminal

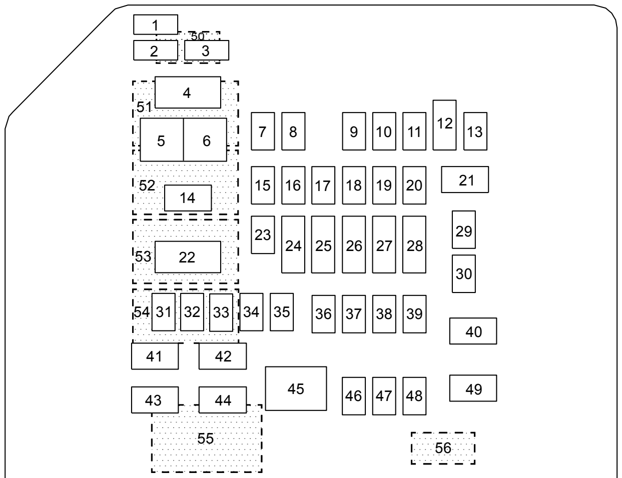
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

X50E Fuse Block - Auxiliary Battery X2 (5W4 and 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	4	YE/VT	5542	Battery Positive Voltage	I	—

X51L Fuse Block - Instrument Panel Left Label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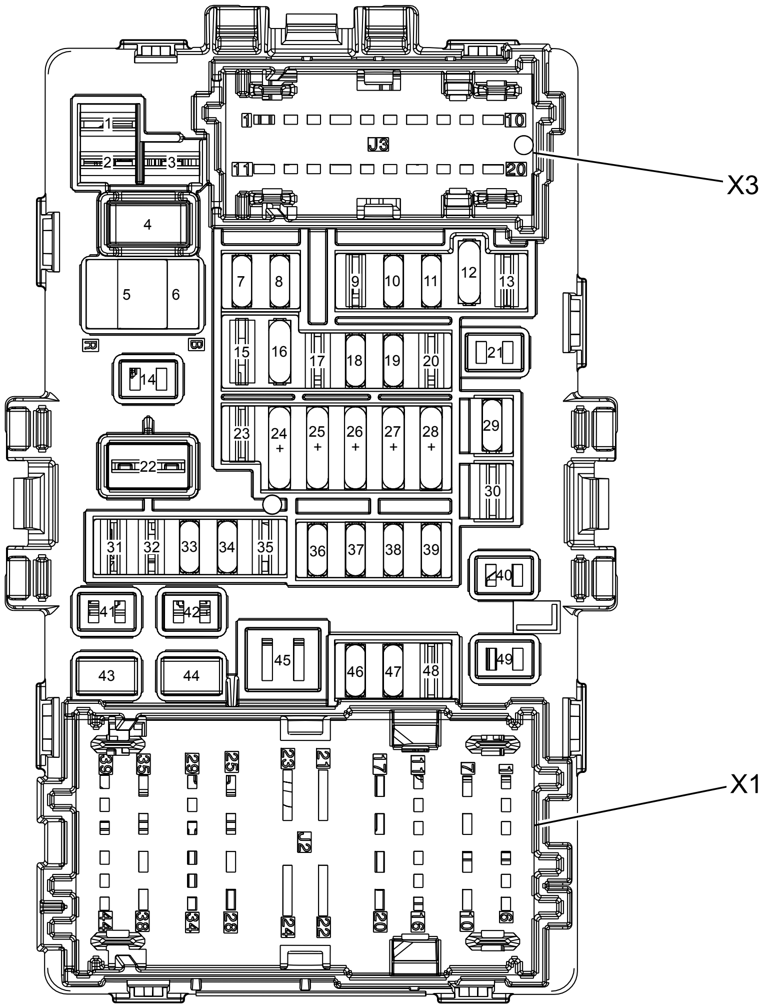
1 EMPTY
2 EMPTY
3 EMPTY
4 AP0 1 (15A)
5 AP0 / RAP (50A)
6 AP0 / BATT (50A)
7 UGDO ISRVM (10A)
8 SEO RAP (10A)
9 EMPTY
10 BCM 3 (20A)
11 BCM 5 (10A)
12 SWC BKLT (2A)
13 EMPTY
14 EMPTY
15 EMPTY
16 DLIS (2A)
17 EMPTY
18 MIR WNDO MDL (5A)

19 BCM 1 (10A)
20 EMPTY
21 EMPTY
22 EMPTY
23 EMPTY
24 HVAC / AUX HVAC IGN (15A/15A)
25 IPC IGN / SDM IGN (10A/10A)
26 TILT COL / SEO
TILT COL LCK1 / SEO (15A/15A)
27 DLC / DSM (10A/10A) (15A)
28 PEPS / HVAC BATT (10A/10A)
29 THEFT DTRNT (10A)
30 EMPTY
31 EMPTY
32 EMPTY
33 SEO ALC (15A)
34 PRK ENBL / EAP (15A)
35 EMPTY
36 MISC RUN CRNK (10A)

37 HTD STR WHL (7.5A)
38 TILT COL LCK2 (10A)
39 IPC (10A)
40 EMPTY
41 EMPTY
42 EMPTY
43 LT DR (30A)
44 DRVR PWR SEAT (30A)
45 EMPTY
46 RT HTD CLD SEAT (15A)
47 LT HTD CLD SEAT (15A)
48 EMPTY
49 EMPTY
50 APO 2 (15A)
51 EMPTY
52 RAP / ACCY (RLY)
53 RUN CRNK (RLY)
54 EMPTY
55 EMPTY
56 EMPTY

X51L Fuse Block - Instrument Panel Left Top View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X50L Fuse Block - Instrument Panel Left Usage

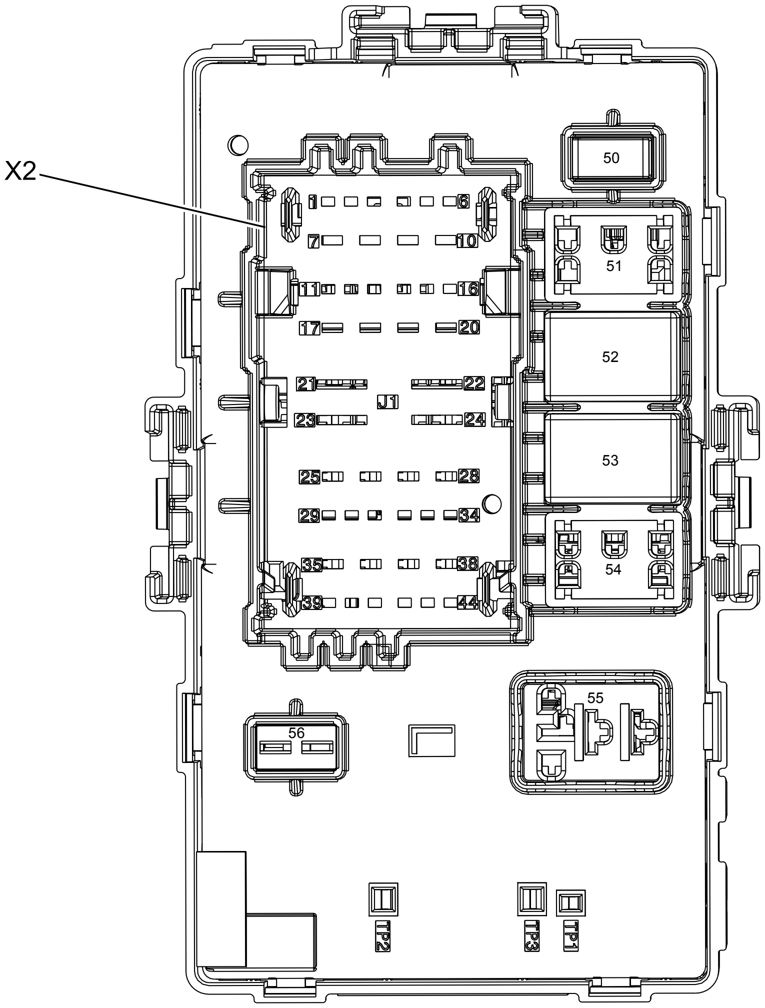
No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	EMPTY	F1DL	-	Not Used
2	EMPTY	F2DL	-	Not Used
3	EMPTY	F3DL	-	Not Used
4	APO 1 (15A)	F4DL	15A	E32 Cigarette Lighter Receptacle (DT4), X80G Accessory Power Receptacle - Instrument Panel (D07 without DT4)
5	APO/RAP (50A)	F5DL	50A	F4DL, F50DL
6	APO/BATT (50A)	F6DL	50A	F4DL, F50DL
7	UGDO ISRVM (10A)	F7DL	10A	S25 Garage Door Opener (UG1), S63 Roof Beacon Switch (TRW)
8	SEO RAP (10A)	F8DL	10A	KR103 DVD Relay (AYE), M69 Sunroof Motor (CF5), T22 Mobile Device Wireless Charger Module (K4C), W9 Blunt Cut - Police Provision (5W4 or 9C1)

9	EMPTY	F9DL	-	Not Used
10	BCM 3 (20A)	F10DL	20A	E4H Headlamp - Right Low Beam (X88 or Z88), E4LF Turn Signal Lamp - Left Front (X88 or Z75), E4Y Turn Signal Repeater Lamp - Left (DL3 or DR4), E5R Stop Lamp - Right Rear (X88 with T89), K9 Body Control Module, KR57 Rear Fog Lamp Relay (T79), K166L Multifunction LED Control Module - Left Headlamp (X88 with TB8, Z88 or Z75), K166R Multifunction LED Control Module - Right Headlamp (Z75), K167L Multifunction LED Control Module - Front Fascia Left (Z75), K174R Multifunction LED Control Module - Right Tail Lamp (Z88 or Z75)
11	BCM 5 (10A)	F11DL	10A	A23C Liftgate latch Assembly (TB4), A23LR Door Latch Assembly - Left Rear, A23RR Door Latch Assembly - Right Rear, B10B Ambient Light/Sunload Sensor, B55 Hood Ajar Switch, B174W Frontview Camera - Windshield (UFL or UGN with Z75), E1A Accent Lamp - Driver Seat, E1AA Floor Accent Lamp - Left Front, E1AB Floor Accent Lamp - Right Front, E1B Accent Lamp - Passenger Seat, E1C Accent Lamp - Driver Door Handle, E1D Accent Lamp - Driver Door (Z75), E1E Accent Lamp - Left Rear Door Handle, E1F Accent Lamp - Right Rear Door Handle, E1LR Accent Lamp - Left Rear Door (Z75), E1M Accent Lamp - Passenger Door Handle, E1P Accent Lamp - Passenger Door (Z75), E1RR Accent Lamp - Right Rear Door (Z75), E38 Flood Lamp - Center Console, E55LR Flood Lamp - Left Rear Door Pocket (Z75), E55RR Flood Lamp - Right Rear Door Pocket (Z75), E63D Flood Lamp - Driver Door Handle (Z75), E63P Flood Lamp - Passenger Door Handle (Z75), KR6 Rear Window Washer Pump Relay, K9 Body Control Module, K14 Distance Sensing Cruise Control Module (K59), K17 Electronic Brake Control Module, K19 Suspension Control Module (Z95), K33 HVAC Control Module, K36 Inflatable Restraint Sensing and Diagnostic Module, K43 Power Steering Control Module, KR61 Trailer Backup Lamps Relay, K73 Telematics Communication Interface Control Module (UE1), K74 Human Machine Interface Control Module (IO5 or IO6), KR76A Retained Accessory Power Relay 1, KR76B Retained Accessory Power Relay 2, K83 Park Brake Control Module (J71), KR95A Liftgate Unlatch Relay (TB4), K124 Active Saftey Control Module (UGN with Z75), KR162 Liftgate Window Unlatch Relay, M4 Air Inlet Door Actuator, M6B Air Temperature Door Actuator - Auxiliary, M6L Air Temperature Door Actuator - Left, M6R Air Temperature Door Actuator - Right, M33 Liftgate Window Latch Assembly, M37B Mode Door Actuator - Auxiliary, M37L Mode Door Actuator - Left, M101L Seat Belt Retractor Motor Module - Left (AX7), M101R Seat Belt Retractor Motor Module - Right (AX7), P22A Video Display - 2nd Row (U42), P22B Video Display - 3rd Row (DNU), S13D Door Lock Switch - Driver, S13P Door Lock Switch - Passenger, S30 Headlamp Switch, S46B Liftgate Unlatch Switch (TB4), S78 Turn Signal/Multifunction Switch, S79D Window Switch - Driver, S141 Liftgate Window Unlatch Switch
12	SWC BKLT (2A)	F12DL	2A	S70L Steering Wheel Controls Switch - Left
13	EMPTY	F13DL	-	Not Used
14	EMPTY	F14DL	-	Not Used
15	EMPTY	F15DL	-	Not Used
16	DLIS (2A)	F16DL	2A	S39 Ignition Switch (without BTM)
17	VPM (10A)	F17DL	10A	K157 Video Processing Control Module (UVH)
18	MIR WNDO MDL (5A)	F18DL	5A	S52 Outside Rearview Mirror Switch, S79D Window Switch - Driver
19	BCM 1 (10A)	F19DL	10A	E6 Center High Mounted Stop Lamp, E7L License Plate Lamp - Left, E7R License Plate Lamp - Right, E8A Door Sill Plate Lamp - Driver (Z75), E8Q Door Sill Plate Lamp - Left Rear (Z75), E8B Door Sill Plate Lamp - Passenger (Z75), E8R Door Sill Plate Lamp - Right Rear (Z75), E28 Center Console Compartment Lamp (D07 without DCK), E31L Sunshade Mirror Lamp - Left, E31R Sunshade Mirror Lamp - Right, E36AH Dome Lamp (LWB), E37H Dome/Reading Lamps - Left Roof Rail (AZ3), E37J Dome/Reading Lamps - Right Roof Rail (AZ3), E37B Dome/Reading Lamps - 2nd Row (without U42), E37C Dome/Reading Lamps - 3rd Row (without DNU), E37EL Dome/Reading Lamps - Front Overhead Console Left, E37ER Dome/Reading Lamps - Front Overhead Console Right, K9 Body Control Module, K101 Trailer Interface Control Module (VQ9), P22A Video Display - 2nd Row (U42), P22B Video Display - 3rd Row (DNU), S5 Center Console Compartment Lamp Switch (D07 without DCK), S30 Headlamp Switch, S33 Horn Switch
20	FRT BLSTR (15A)	F20DL	15A	K134D Seat Bolster Memory Control Module - Driver (ULT), K134P Seat Bolster Memory Control Module - Passenger (ULT), S64D Seat Adjuster Switch - Driver (ULT), S64P Seat Adjuster Switch - Passenger (ULT)
21	EMPTY	F21DL	-	Not Used

21	EMPTY	F21DL	-	Not Used
22	EMPTY	F22DL	-	Not Used
23	EMPTY	F23DL	-	Not Used
24	HVAC/AUX HVAC IGN (15A/15A)	F24DL	15A	K33 HVAC Control Module, K175 Center Console Compartment Cooler Control Module (DCK)
25	IPC IGN/SDM IGN (10A/10A)	F25DL	10A	P14 Passenger Air Bag Disabled Indicator, P16 Instrument Cluster, P43 Collision Alert Indicators (UEU without UVC)
26	TILT COL/SEO TILT COL LCK1/SEO (15A/15A)	F26DL	15A	E35L Exterior Spot Lamp - Left (7X6 or 7X7), E35R Exterior Spot Lamp - Right (7X7), K60 Steering Column Lock Module (BTM), K99 Steering Column Position Control Module (N38)
27	DLC/DSM (10A/10A)	F27DL	10A	K40D Seat Memory Control Module - Driver (A45), K40P Seat Memory Control Module - Passenger (AG2), X84 Data Link Connector
28	PEPS/HVAC BATT (10A/10A)	F28DL	10A	K33 HVAC Control Module, K84 Keyless Entry Control Module (BTM)
29	THEFT DTRNT (10A)	F29DL	10A	B165 Content Theft Deterrent Sensor Module (UTU or UTV), P4 Security Siren (UTR)
30	EMPTY	F30DL	-	Not Used
31	EMPTY	F31DL	-	Not Used
32	EMPTY	F32DL	-	Not Used
33	SEO ALC (15A)	F33DL	15A	W9 Blunt Cut - Police Provision (5W4 or 9C1)
34	PRK ENBL/EAP (15A)	F34DL	10A	KR16B Park Brake Relay, KR1F Adjustable Pedal Relay - Forward, KR1R Adjustable Pedal Relay - Rearward, M5 Adjustable Pedal Motor (JF4 without A45)
35	EMPTY	F35DL	-	Not Used
36	MISC RUN CRNK (10A)	F36DL	10A	A10 Inside Rear View Mirror (AZ3 or DD8), A34 HVAC Controls - Auxiliary (AZ3 or DD8), B87 Rearview Camera (UVC), K69 Transfer Case Control Module (NQH or NP0)
37	HTD STR WHL (7.5A)	F37DL	7.5A	K32 Steering Wheel Heating Control Module (UVD)
38	TILT COL LCK2 (10A)	F38DL	10A	K60 Steering Column Lock Module (BTM)
39	IPC (10A)	F39DL	10A	K78 Head-Up Display Module (UV6), P16 Instrument Cluster, P17 Info Display Module, S31D Seat Heating and Cooling Switch - Driver (KB6 without Z75), S31P Seat Heating and Cooling Switch - Passenger (KB6 without Z75)
40	EMPTY	F40DL	-	Not Used
41	EMPTY	F41DL	-	Not Used
42	EURO TRLR	F42DL	30A	Blunt Cut — Trailer Provision (VQ9)
43	LT DR (30A)	F43DL	30A	M74D Window Motor - Driver, S79LR Window Switch - Left Rear
44	DRVR PWR SEAT (30A)	F44DL	30A	K40D Seat Memory Control Module - Driver (A45), S64D Seat Adjuster Switch - Driver (without A45)
45	EMPTY	F45DL	-	Not Used
46	RT HTD CLD SEAT (15A)	F46DL	15A	K53P Seat Blower Assembly - Passenger Back (KB6), K55P Seat Blower Assembly - Passenger Cushion (KB6)
47	LT HTD CLD SEAT (15A)	F47DL	15A	K53D Seat Blower Assembly - Driver Back (KB6), K55P Seat Blower Assembly - Driver Cushion (KB6)

48	EMPTY	F48DL	-	Not Used
49	EMPTY	F49DL	-	Not Used

X51L Fuse Block - Instrument Panel Left Bottom View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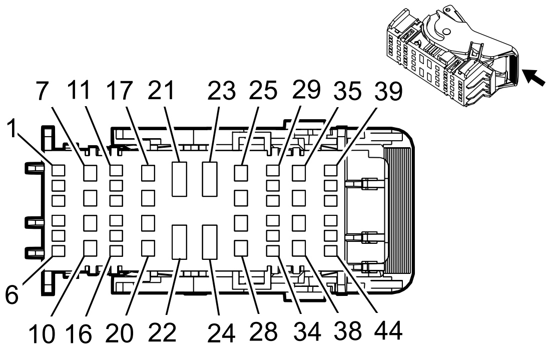
X50L Fuse Block - Instrument Panel Left Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
50	APO 2 (15A)	F50DL	15A	X80G Accessory Power Receptacle - Instrument Panel (AZ3 without DT4)
56	EMPTY	F56DL	-	Not Used
Relays				
51	EMPTY	-	-	Not Used
52	RAP/ACCY (RLY)	KR76A Retained Accessory Power Relay 1	-	F8DL, F5DL
53	RUN CRNK (RLY)	KR73 Ignition Main Relay	-	F24DL, F25DL, F33DL, F36DL, F37DL, F38DL
54	EMPTY	-	-	Not Used
55	EMPTY	-	-	Not Used
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block				

-	-	KR87 Transmission Park Position Relay	-	KR1F Adjustable Pedal Relay - Forward (JF4 without A45), KR1R Adjustable Pedal Relay - Rearward (JF4 without A45), S143L Folding Seat Control Switch — 2nd Row Left (ATN or ATT), S143R Folding Seat Control Switch — 2nd Row Right (ATN or ATT), S144A Folding Seat Control Switch — Rear Compartment 2nd Row (ATN or ATT), S144B Folding Seat Control Switch — Rear Compartment 3rd Row (ATN or ATT)
-	-	KR1F Adjustable Pedal Relay - Forward	-	M5 Adjustable Pedal Motor (JF4 without A45)
-	-	KR1R Adjustable Pedal Relay - Rearward	-	M5 Adjustable Pedal Motor (JF4 without A45)

X51L Fuse Block - Instrument Panel Left X1



Connector Part Information

Harness Type: Body

OEM Connector: 13967687

Service Connector: 19329455

Description: 44-Way F 1.5, 2.8, 800 Metri Pack Series (BK)

Terminal Part Information

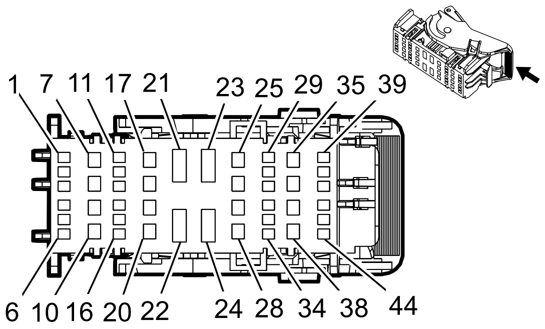
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13327105	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
IV	13575838	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VI	13579912	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

X51L Fuse Block - Instrument Panel Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	RD/BN RD/BN	2240 2240	Battery Positive Voltage Battery Positive Voltage	I	ULT ULT
2	0.5 0.5	RD/D-BU RD/D-BU	4540 4540	Battery Positive Voltage Battery Positive Voltage	I	UTT UTT
3	0.5	RD/VT	1640	Battery Positive Voltage	V	UVH
4	0.75	RD/L-GN	5140	Battery Positive Voltage	I	-
5	0.5	RD/BN	1140	Battery Positive Voltage	I	A45, JF4, UFL,UGN or Z75
6-13	-	-	-	Not Occupied	-	-
14	0.5	RD/YE	4340	Battery Positive Voltage	I	ATH
15	0.35	L-GN/GY	5286	Adjustable Pedal Switch Forward Signal	I	-
16	0.35	RD/VT	1940	Battery Positive Voltage	I	-

17	0.75	RD/GN	6140	Battery Positive Voltage	II	KB6
18	0.75	RD/L-GN	5140	Battery Positive Voltage	II	KB6
19	-	-	-	Not Occupied	-	-
20	0.75	L-GN/VT	5130	Adjustable Pedal Actuator Forward Control	II	-
21	5	RD/VT	842	Battery Positive Voltage	III	-
22	-	-	-	Not Occupied	-	-
23	5	RD/D-BU	42	Battery Positive Voltage	III	-
24	-	-	-	Not Occupied	-	-
25	2.5	RD/GY	1342	Battery Positive Voltage	II	-
26	2.5	RD/YE	5040	Battery Positive Voltage	II	-
27	2.5	RD/YE	5040	Battery Positive Voltage	II	-
28	0.75	YE	5129	Adjustable Pedal Actuator Rearward Control	II	-
29	-	-	-	Not Occupied	-	-
30	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage	I	-
31	-	-	-	Not Occupied	-	-
32	0.5	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	UVC
33	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	I	-
34	0.5	YE/BK	5813	Park Enable Supply Voltage	I	5W4, 9C1, ATN or ATT
35	-	-	-	Not Occupied	-	-
36	2.5	RD/D-BU	1842	Battery Positive Voltage	II	-
37	2.5	RD/D-BU	1842	Battery Positive Voltage	II	-
38-41	-	-	-	Not Occupied	-	-
42	0.35	L-GN/VT	5199	Run/Crank Relay Coil Control	I	-
43	0.35 0.35 0.35	GY/VT GY/L-GN GY/VT	755 4083 755	RAP Relay Coil Control RAP Relay 2 Coil Control RAP Relay Coil Control	I	without BTM BTM without BTM
44	0.35 0.35	VT/YE VT/YE	43 43	Accessory Voltage Accessory Voltage	I	-

X51L Fuse Block - Instrument Panel Left X2



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13967688

Service Connector: 19329456

Description: 44-Way F 1.5, 2.8, 800 Metri Pack Series (GY)

Terminal Part Information

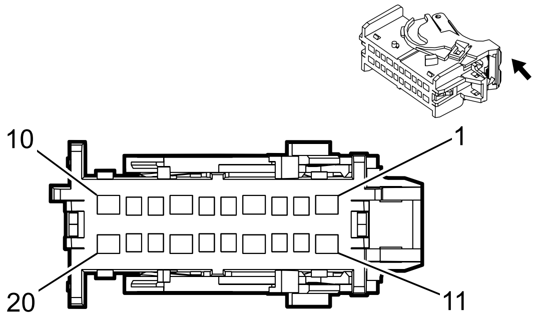
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

X51L Fuse Block - Instrument Panel Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.5	YE	6817	LED Backlight Dimming Control	I	-
4	0.35	BN	6136	Supply Voltage	I	-
5	0.5	RD/D-BU	540	Battery Positive Voltage	I	-
6	-	-	-	Not Occupied	-	-
7	0.5	RD/BN	2940	Battery Positive Voltage	II	-
8	1	RD/GY	2140	Battery Positive Voltage	II	-
9	-	-	-	Not Occupied	-	-
10	1.5	RD/BN	4240	Battery Positive Voltage	II	AZ3 without DT4
11-13	-	-	-	Not Occupied	-	-
14	0.75	RD/GY	4140	Battery Positive Voltage	I	5W4, 9C1 or BTM
15	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	I	-
16-17	-	-	-	Not Occupied	-	-
18	0.5	RD/WH	2740	Battery Positive Voltage	II	-

19	-	-	-	Not Occupied	-	-
20	1.5	RD/WH	1040	Battery Positive Voltage	II	D07 or AZ3 with DT4
21-24	-	-	-	Not Occupied	-	-
25	0.5	RD/VT	3340	Battery Positive Voltage	II	-
26	0.5	RD/WH	640	Battery Positive Voltage	II	-
27	1.5	RD/VT	4640	Battery Positive Voltage	II	5W4, 9C1 or N38
28	0.5 0.5	VT/BK VT/BK	1639 1639	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	II	UEU without UVC UEU without UVC
29-33	-	-	-	Not Occupied	-	-
34	0.5	VT/BK	739	Run/Crank Ignition 1 Voltage	I	-
35	0.5	RD/GY	2840	Battery Positive Voltage	II	-
36	0.75	D-BU/VT	807	OFF /Accessory Voltage	II	BTM
37	0.5	VT/WH	1139	Run/Crank Ignition 1 Voltage	II	UVD
38	0.35 0.35	VT/L-GN VT/L-GN	1739 1739	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	II	D07 NP0 or NQH
39-42	-	-	-	Not Occupied	-	-
43	0.35	YE	6812	Out of Park Signal	I	5W4, 9C1, ATN, ATT or JF4 without A45
44	0.75	BK	1850	Ground	I	-

X51L Fuse Block - Instrument Panel Left X3



Connector Part Information

Harness Type: Headliner

OEM Connector: 15522322

Service Connector: 13581821

Description: 20-Way F 1.5, 2.8 Series (BK)

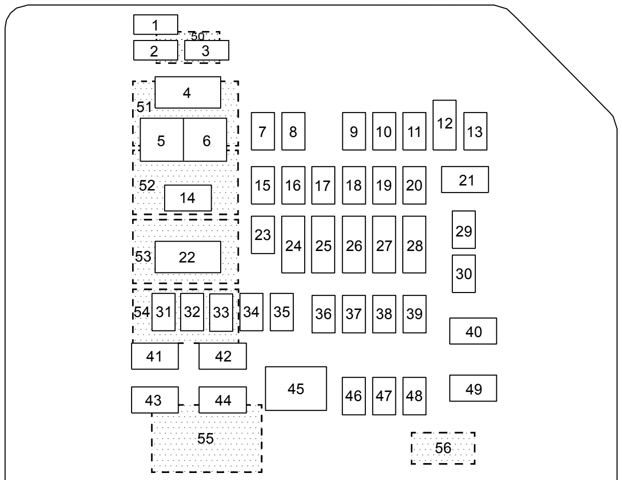
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X51L Fuse Block - Instrument Panel Left X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-10	-	-	-	Not Occupied	-	-
11	0.35	VT/YE	43	Accessory Voltage	I	-
12	0.5	RD/YE	240	Battery Positive Voltage	II	-
13	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	II	-
14	0.35	VT/BK	1139	Run/Crank Ignition 1 Voltage	I	-
15-20	-	-	-	Not Occupied	-	-

X51R Fuse Block - Instrument Panel Right Label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7	EMPTY
8	GLBX (10A)
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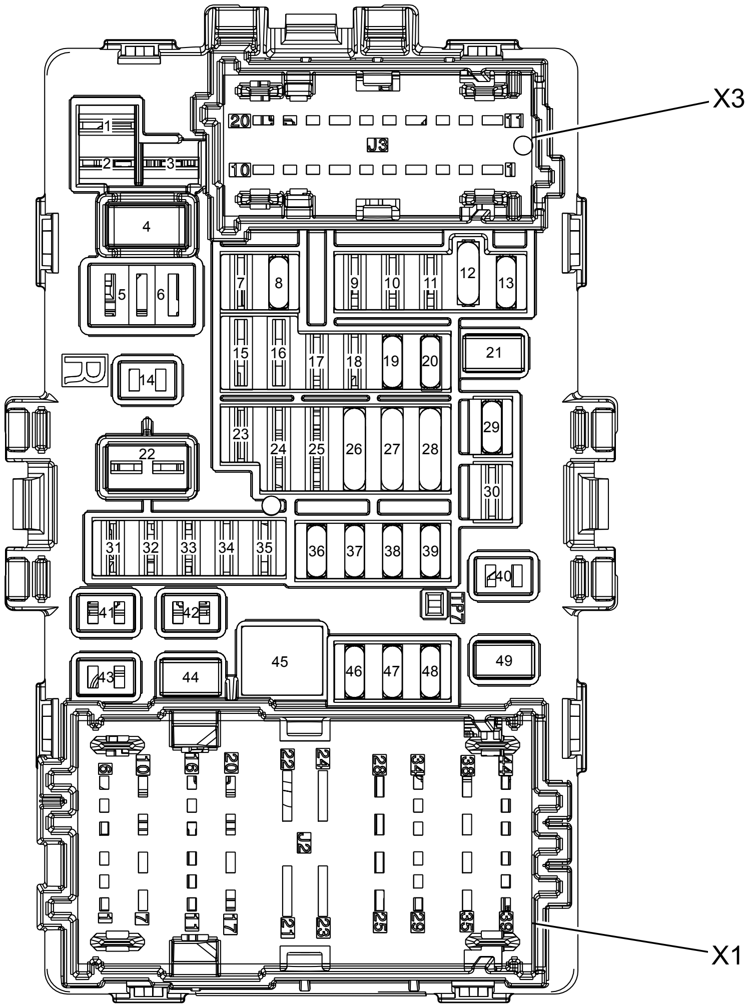
10	EMPTY
11	EMPTY
12	SWC (2A)
13	BCM 8 (20A)
14	EMPTY
15	EMPTY
16	EMPTY
17	EMPTY
18	EMPTY
19	BCM 4 (20A)
20	RSE (10A)
21	S/ROOF (30A)
22	EMPTY
23	EMPTY
24	EMPTY
25	EMPTY
26	INFO/AIRBAG (10A/10A)
27	SPARE/RAIN SNSR (10A/10A)
28	USB/OBS DET (15A)
29	RDO (20A)
30	EMPTY
31	EMPTY
32	EMPTY
33	EMPTY
34	EMPTY
35	EMPTY
36	SEO B2 (30A)
37	SEO (15A)
38	BCM 2 (10A)
39	AC INV (25A)
40	EMPTY
41	EMPTY
42	EMPTY
43	EMPTY
44	RT DR WNDW MTR (30A)
45	FRT BLWR (40A)
46	BCM 6 (15A)
47	BCM 7 (15A)
48	AMP (30A)
49	RT FRT SEAT (30A)
50	APO 3 (15A)
51	EMPTY
52	RAP / ACCY (RLY)
53	EMPTY
54	EMPTY
55	EMPTY
56	EMPTY

X51R Fuse Block - Instrument Panel Right Top View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X50R Fuse Block - Instrument Panel Right Usage

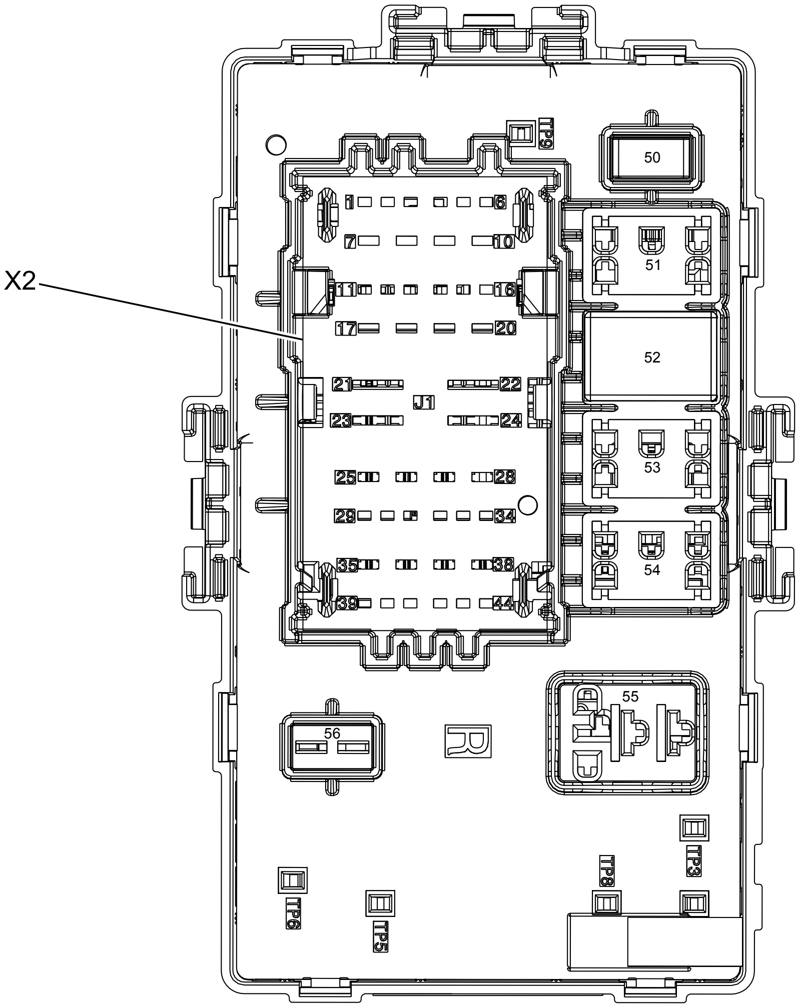
No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	EMPTY	F1DR	-	Not Used
2	EMPTY	F2DR	-	Not Used
3	EMPTY	F3DR	-	Not Used
4	APO 4 (15A)	F4DR	15A	X80D Accessory Power Receptacle - Center Console Compartment (AZ3 with AVF or D07 without AVF), X80L Accessory Power Receptacle - Center Console Rear (D07)
5	EMPTY	F5DR	-	Not Used
6	EMPTY	F6DR	-	Not Used
7	EMPTY	F7DR	-	Not Used
8	GLBX (10A)	F8DR	-	KR147 Instrument Panel Compartment Door Unlatch Actuator Relay (Z75), M91 Instrument Panel Compartment Door Unlatch Actuator (Z75)

9	EMPTY	F9DR	-	Not Used
10	EMPTY	F10DR	-	Not Used
11	EMPTY	F11DR	-	Not Used
12	SWC (2A)	F12DR	2A	S70L Steering Wheel Controls Switch - Left, S70R Steering Wheel Controls Switch - Right
13	BCM 8 (20A)	F13DR	20A	A23D Door Latch Assembly - Driver, A23LR Door Latch Assembly - Left Rear, A23P Door Latch Assembly - Passenger, A23RR Door Latch Assembly - Right Rear, K9 Body Control Module, KR113 Child Security Lock Disable Relay, M27 Fuel Fill Door Unlatch Actuator
14	EMPTY	F14DR	-	Not Used
15	EMPTY	F15DR	-	Not Used
16	EMPTY	F16DR	-	Not Used
17	EMPTY	F17DR	-	Not Used
18	EMPTY	F18DR	-	Not Used
19	BCM 4 (20A)	F19DR	-	E4G Headlamp - Left Low Beam (X88 or Z88), E4RF Turn Signal Lamp - Right Front (X88 or Z75), E4Z Turn Signal Repeater Lamp - Right (DL3 or DR4), E5L Stop Lamp - Left (X88 with T89), K9 Body Contol Module, K166R Multifunction LED Control Module - Right Headlamp (X88 with TB8, Z88 or Z75), K166L Multifunction LED Control Module - Left Headlamp (Z75), K167R Multifunction LED Control Module - Front Fascia Right (Z75), K174L Multifunction LED Control Module - Left Tail Lamp (Z88 or Z75)
20	RSE (10A)	F20DR	10A	P22A Video Display - 2nd Row (U42), P22B Video Display - 3rd Row (DNU), S48C Multifunction Switch 1 - Instrument Panel (Z75), S48D Multifunction Switch 2 - Instrument Panel (Z75), S140 Media Disc Eject Switch (TG5 or U42)
21	S/ROOF (30A)	F21DR	30A	KR58 Roof Beacon Relay (TRW), M69 Sunroof Motor (CF5)
22	EMPTY	F22DR	-	Not Used
23	EMPTY	F23DR	-	Not Used
24	EMPTY	F24DR	-	Not Used
25	EMPTY	F25DR	-	Not Used
26	INFO/AIRBAG (10A/10A)	F26DR	10A	K36 Inflatable Restraint Sensing and Diagnostic Module , K73 Telematics Communication Interface Control Module (UE1), K85 Passenger Presence Module
27	SPARE/RAIN SNSR (10A/10A)	F27DR	10A	B200 Rain Sensor Module, S79P Window Switch - Passenger
28	USB / OBS DET (10A)	F28DR	10A	B174W Frontview Camera - Windshield (UFL, UHX or UGN with Z75), B218R Side Object Sensor Module - Right (UKC), K14 Distance Sensing Cruise Control Module (K59), K41 Front and Rear Parking Assist Control Module (UD5 or UD7), K124 Active Saftey Control Module (UGN), X83 Auxiliary Audio Input (AZ3)
29	RDO (20A)	F29DR	20A	A11 Radio, A33 Media Disc Player, K74 Human Machine Interface Control Module (IO5 or IO6), X82 Audio/Video Input Adapter (D07 with U42), X83 Auxiliary Audio Input (D07)
30	EMPTY	F30DR	-	Not Used
31	EMPTY	F31DR	-	Not Used
32	EMPTY	F32DR	-	Not Used
33	EMPTY	F33DR	-	Not Used

33	EMPTY	F33DR		Not Used
34	EMPTY	F34DR	-	Not Used
35	EMPTY	F35DR	-	Not Used
36	SEO B2 (30A)	F36DR	30A	KR103 DVD Relay (AYE), X55X Fuse Holder - Video Display (AYE), X61A Junction Block - Instrument Panel (AYE)
37	SEO (15A)	F37DR	15A	Not Used
38	BCM 2 (10A)	F38DR	10A	K9 Body Control Module, KR81 Auxiliary Battery Relay 1 (5W4 or 9C1), S30 Headlamp Switch, S77 Transfer Case Shift Control Switch (NP0 or NQH), X81 Accessory Power Receptacle - 110V AC (KI4), X81B Accessory Power Receptacle - 220V AC (KI5)
39	AC INV (25A)	F39DR	25A	T1 Accessory DC/AC Power Inverter Module (KI4 or KI5)
40	EMPTY	F40DR	-	Not Used
41	EMPTY	F41DR	-	Not Used
42	EMPTY	F42DR	-	Not Used
43	EMPTY	F43DR	-	Not Used
44	RT DR WNDW MTR (30A)	F44DR	30A	M74P Window Motor - Passenger, S79P Window Switch - Passenger
45	FRT BLWR (40A)	F45DR	40A	M8 Blower Motor
46	BCM 6 (15A)	F46DR	15A	E4RR Turn Signal Lamp - Right Rear (X88 with T89), E5AU Stop/Turn Signal Lamp - Right Upper (X88 without T89), E5AV Stop/Turn Signal Lamp - Right Lower (X88 without T89), E37B Dome/Reading Lamps - 2nd Row (without U42), E37C Dome/Reading Lamps - 3rd Row (without DNU), E37EL Dome/Reading Lamps - Front Overhead Console Left, E37ER Dome/Reading Lamps - Front Overhead Console Right, E37H Dome/Reading Lamps - Left Roof Rail (AZ3), E37J Dome/Reading Lamps - Right Roof Rail (AZ3), F12DL, K9 Body Control Module, KR11 Windshield Washer Pump Relay, KR12B Windshield Wiper Relay, K20 Engine Control Module, K38 Chassis Control Module (IK9, JL1 or Z85), K69 Transfer Case Control Module (NP0 or NQH), K71 Transmission Control Module (M5U), K111 Fuel Pump Control Module, K167R Multifunction LED Control Module - Front Fascia Right (Z75), K174R Multifunction LED Control Module - Right Tail Lamp (Z88 or Z75), P22A Video Display - 2nd Row (U42), P22B Video Display - 3rd Row (DNU), Q8 Control Solenoid Valve Assembly (MYC), S12 Dome Lamp Switch, S13D Door Lock Switch - Driver, S13P Door Lock Switch - Passenger, S25 Garage Door Opener (UG1), S27 Heads-Up Display Switch (UV6), S30 Headlamp Switch, S38 Ignition Mode Switch (BTM), S43 Content Theft Deterrent Sensor Disable Switch (UTT), S45B Liftgate Control Switch - Interior (TB5 or TC2), S47D Seat Memory Switch - Driver (A45), S48A Multifunction Switch - Instrument Panel (X88 or Z88), S48D Multifunction Switch 2 - Instrument Panel (Z75), S52 Outside Rearview Mirror Switch (without A45), S72 Sunroof Switch (CF5), S76 Trailer Brake Control Switch (JL1), S77 Transfer Case Shift Control Switch (NP0 or NQH), S79P Window Switch - Passenger, S91 Park Brake Control Switch (J71), S140 Media Disc Eject Switch (Z75), S145 Center Console Compartment Cooler Switch (DCK)
47	BCM 7 (15A)	F47DR	15A	A23D Door Latch Assembly - Driver, A23LR Door Latch Assembly - Left Rear, A23P Door Latch Assembly - Passenger, A23RR Door Latch Assembly - Right Rear, E4LR Turn Signal Lamp - Left Rear, E5AS Stop/Turn Signal Lamp - Left Upper, E5AT Stop/Turn Signal Lamp - Left Lower, E8XA Door Handle Courtesy Lamp - Driver Exterior (DL3 or DR4 with HD7), E8XB Door Handle Courtesy Lamp - Passenger Exterior (DL3 or DR4 with HD7), E8XC Door Handle Courtesy Lamp - Left Rear Exterior (HD7), E8XD Door Handle Courtesy Lamp - Right Rear Exterior (HD7), E8YD Outside Rearview Mirror Courtesy Lamp - Driver (DL3 or DR4), E8YP Outside Rearview Mirror Courtesy Lamp - Passenger (DL3 or DR4), E8ZL Running Board Step Courtesy Lamp - Left (BRS), E8ZR Running Board Step Courtesy Lamp - Right (BRS), K9 Body Control Module, K174L Multifunction LED Control Module - Left Tail Lamp (Z88 or Z75), KR114 Door Lock Relay, M7 Transmission Shift Lock Control Solenoid Actuator, M27 Fuel Fill Door Unlatch Actuator (N08)
48	AMP (30A)	F48DR	30A	T3 Audio Amplifier (IO5 or IO6)
49	RT FRT SEAT (30A)	F49DR	30A	K40P Seat Memory Control Module - Passenger (AG2 with ULT), S64P Seat Adjuster Switch -

				Passenger (AG2 without ULT)

X51R Fuse Block - Instrument Panel Right Bottom View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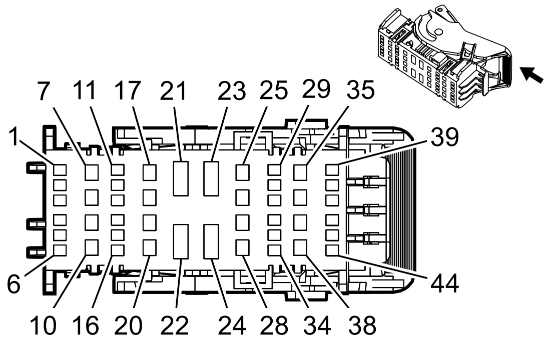
X50R Fuse Block - Instrument Panel Right Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
50	APO 3 (15A)	F50DR	15A	X80D Accessory Power Receptacle - Center Console Compartment (AZ3 without AVF or D07 with AVF), X80E Accessory Power Receptacle — Center Seat (AZ3)
56	EMPTY	F56DR	-	Not Used
Relays				
51	EMPTY	-	-	Not Used
52	RAP / ACCY (RLY)	KR76B Retained Accessory Power Relay 2	-	F4DR, F50DR
53	EMPTY	-	-	Not Used
54	EMPTY	-	-	Not Used
55	EMPTY	-	-	Not Used
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block				

-	KR113 Child Security Lock Disable Relay	-	-	A23LR Door Latch Assembly - Left Rear, A23P Door Latch Assembly - Passenger, A24RR Door Latch Assembly - Right Rear
-	KR114 Door Dead Lock Relay (N08 or UTT)	-	-	A24D Door Latch Assembly - Driver, A23LR Door Latch Assembly - Left Rear, A23P Door Latch Assembly - Passenger, A24RR Door Latch Assembly - Right Rear, M27 Fuel Fill Door Unlatch Actuator (N08)
-	KR147 Instrument Panel Compartment Door Unlatch Actuator Relay (Z75)	-	-	M91 Instrument Panel Compartment Door Unlatch Actuator (Z75)

X51R Fuse Block - Instrument Panel Right X1



Connector Part Information

Harness Type: Body

OEM Connector: 13967689

Service Connector: 19329457

Description: 44-Way F 1.5, 2.8, 800 Metri Pack Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13580076	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
IV	13327105	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
V	13582297	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available

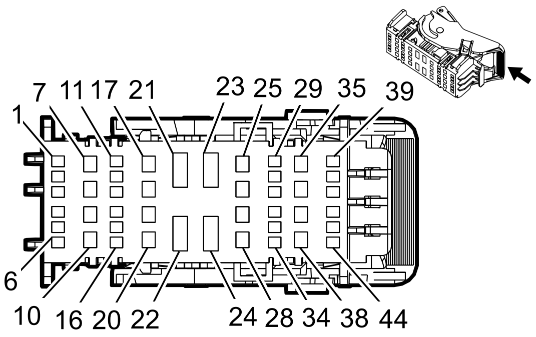
X51R Fuse Block - Instrument Panel Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY	295	Door Lock Actuator Lock Control	I	-
2	1.5	WH/D-BU	3266	Child Security Lock Motor Unlock Control	I	-
3	0.35	VT/YE	3267	Child Security Lock Relay Control	I	-
4	1.5	GY/L-GN	3271	Door Lock Control (2)	I	-
5	-	-	-	Not Occupied	-	-
6	0.35 0.35	GY/VT GY/L-GN	755 4083	RAP Relay Coil Control RAP Relay 2 Coil Control	I	without BTM BTM
7-8	-	-	-	Not Occupied	-	-
9	2.5	GY/L-GN	5441	Endgate Window Regulator Down Signal	II	-
10	2.5	YE/D-BU	5442	Endgate Window Regulator Up Signal	II	-
11	-	-	-	Not Occupied	-	-
12	0.75	RD/D-BU	4540	Battery Positive Voltage	I	-

12	0.75	RD/D-BU	4540	Battery Positive Voltage	I	-
13	0.75	RD/VT	2640	Battery Positive Voltage	I	-
14	-	-	-	Not Occupied	-	-
15	0.35	RD/D-BU	840	Battery Positive Voltage	I	-
16	0.5 0.5	RD/L-GN RD/L-GN	4440 4440	Battery Positive Voltage Battery Positive Voltage	I	- -
17	-	-	-	Not Occupied	-	-
18	1.5 1.5	VT/YE RD/D-BU	143 840	Accessory Voltage Battery Positive Voltage	II	AVF AZ3 without AVF
19	2.5	RD/WH	1340	Battery Positive Voltage	II	-
20	2.5	RD/WH	1340	Battery Positive Voltage	II	-
21	6	RD/L-GN	242	Battery Positive Voltage	III	-
22	4	RD/VT	542	Battery Positive Voltage	IV	-
23	-	-	-	Not Occupied	-	-
24	6	RD/GY	142	Battery Positive Voltage	V	-
25-26	-	-	-	Not Occupied	-	-
27	0.75	RD/VT	340	Battery Positive Voltage	II	-
28	-	-	-	Not Occupied	-	-
29	1.5	D-BU/WH	195	Door Lock Control	I	-
30	1.5	BN	5910	Door Double Lock Actuator Lock Control	I	UTT
31	-	-	-	Not Occupied	-	-
32	0.5	L-GN/BN	6132	Linear Interconnect Network Bus 1	I	-
33	0.75	RD/WH	3440	Battery Positive Voltage	I	-
34	0.75	RD/L-GN	5140	Battery Positive Voltage	I	-
35-36	-	-	-	Not Occupied	-	-
37	2.5	RD/YE	3740	Battery Positive Voltage	II	UQA, UQH or UQS
38	2.5	RD/BN	1440	Battery Positive Voltage	II	AG2
39	-	-	-	Not Occupied	-	-
40	0.75 0.75	GY GY	5911 5911	Door Lock Actuator Lock Control 2 Door Lock Actuator Lock Control 2	I	N08 N08
41	0.35	D-BU/BN	7547	Security Lock Relay Control	I	UTT
42	0.35 0.5	RD/D-BU RD/D-BU	840 840	Battery Positive Voltage Battery Positive Voltage	I	- -

43	0.75	RD/L-GN	3140	Battery Positive Voltage	I	-
44	-	-	-	Not Occupied	-	-

X51R Fuse Block - Instrument Panel Right X2



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13967690

Service Connector: 19329458

Description: 44-Way F 1.5, 2.8, 800 Metri Pack Series (GN)

Terminal Part Information

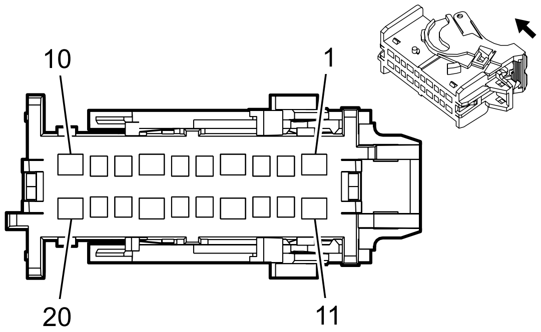
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13575718	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available

X51R Fuse Block - Instrument Panel Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/L-GN	1540	Battery Positive Voltage	I	U42
2	0.35	BN/WH	4046	Glove Box Door Release Relay Control	I	Z75
3	-	-	-	Not Occupied	-	-
4	0.5	BN/WH	1429	Standing Lamp Relay Control	I	-
5	0.5	BK	1050	Ground	I	-
6	-	-	-	Not Occupied	-	-
7	0.75	RD/VT	4040	Battery Positive Voltage	II	-
8	0.75	RD/D-BU	2540	Battery Positive Voltage	II	-
9	-	-	-	Not Occupied	-	-
10	1.5 1.5	VT/YE RD/D-BU	243 840	Accessory Voltage Battery Positive Voltage	II	AVF D07 without AVF
11	0.75	WH/VT	1430	Exterior Courtesy Lamp Supply Voltage	I	-
12-15	-	-	-	Not Occupied	-	-
16	0.35	RD/YE	3040	Battery Positive Voltage	I	-

16	0.35	RD/YE	3040	Battery Positive Voltage	I	-
17	1	RD/VT	340	Battery Positive Voltage	II	-
18	-	-	-	Not Occupied	-	-
19	0.5	BN/GY	4048	Glove Box Door Release Control	II	Z75
20-21	-	-	-	Not Occupied	-	-
22	2.5	BK	1050	Ground	III	-
23-28	-	-	-	Not Occupied	-	-
29	0.5	RD/BN	2240	Battery Positive Voltage	I	-
30-31	-	-	-	Not Occupied	-	-
32	0.35	YE/VT	6191	Power Sliding Window Switch Open Signal	I	-
33	0.35	WH	6192	Power Sliding Window Switch Close Signal	I	-
34	0.35	RD/D-BU	3240	Battery Positive Voltage	I	UE1
35	2.5	RD/GY	4140	Battery Positive Voltage	II	KI4 or KI5
36-37	-	-	-	Not Occupied	-	-
38	1.5	RD/YE	2340	Battery Positive Voltage	II	-
39-41	-	-	-	Not Occupied	-	-
42	0.5	RD/L-GN	3840	Battery Positive Voltage	I	-
43-44	-	-	-	Not Occupied	-	-

X51R Fuse Block - Instrument Panel Right X3



Connector Part Information

Harness Type: A-Pillar

OEM Connector: 13924035

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 1.5, 2.8 OCS Series (GY)

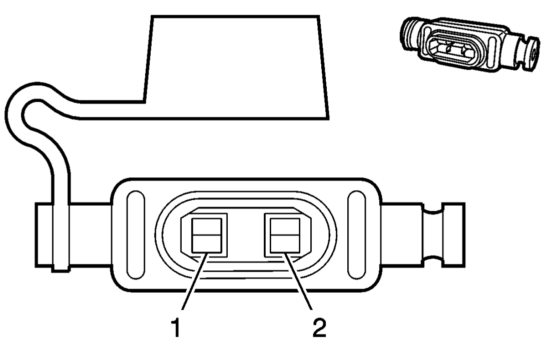
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

X51R Fuse Block - Instrument Panel Right X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/L-GN	3140	Battery Positive Voltage	I	CF5 or TRW
2	0.5	L-GN/BN	6132	Linear Interconnect Network Bus 1	II	-
3-7	-	-	-	Not Occupied	-	-
8	0.35	RD/D-BU	840	Battery Positive Voltage	II	-
9	-	-	-	Not Occupied	-	-
10	0.35 2.5	BK BK	1050 1050	Ground Ground	I	- 5W4, 9C1 or CF5
11-20	-	-	-	Not Occupied	-	-

X55X Fuse Holder - Video Display (AYE)



Connector Part Information

Harness Type: Accessory Power Harness

OEM Connector: Not Available

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way Fuse Holder

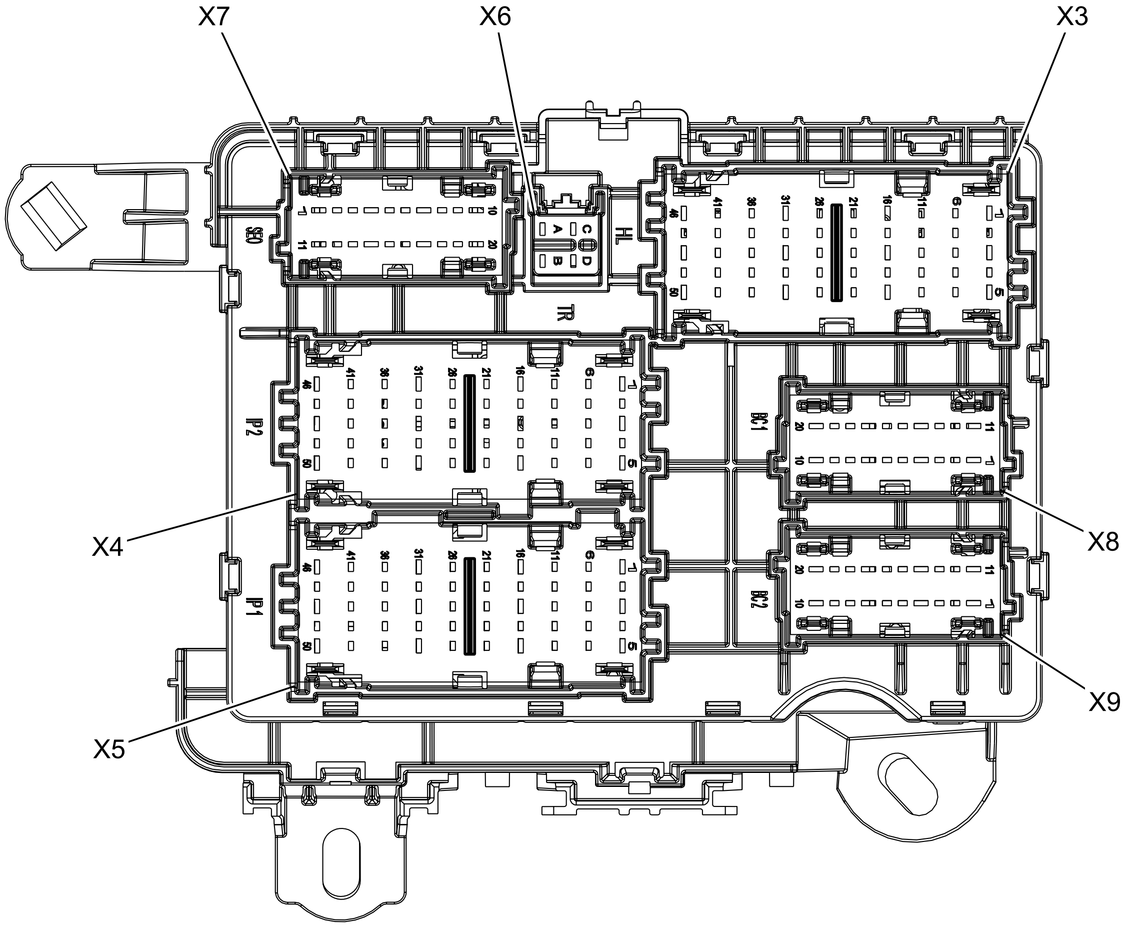
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Service by Harness – See Part Catalog	–	–

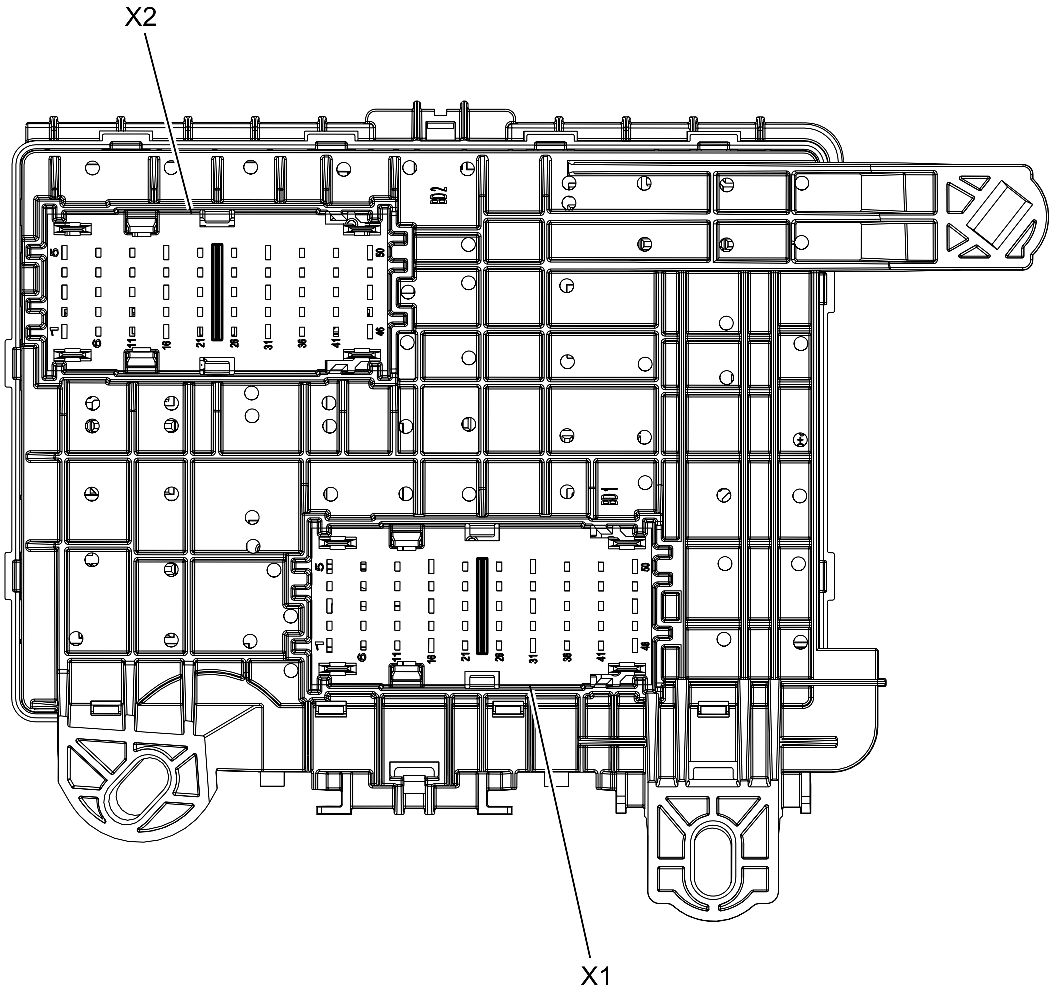
X55X Fuse Holder - Video Display (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	RD	-	Battery Positive Voltage	I	—
2	-	RD	-	Battery Positive Voltage	I	—

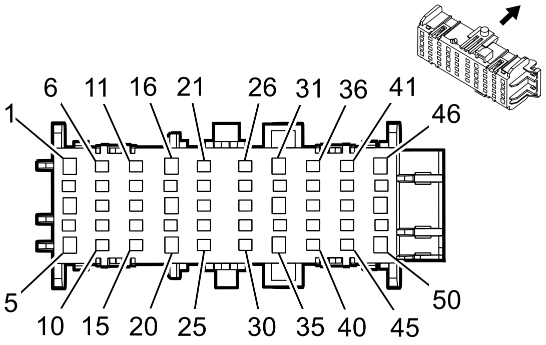
X61A Junction Block - Instrument Panel Top View


X7
X6
X3
SEO
HL
TR
IP2
IP1
BC1
BC2
X4
X8
X9
X5

X61A Junction Block - Instrument Panel Bottom View



X61A Junction Block - Instrument Panel X1



Connector Part Information

Harness Type: Body

OEM Connector: 15501741

Service Connector: 19301798

Description: 50-Way F 1.5, 2.8 OCS Series (BK)

Terminal Part Information

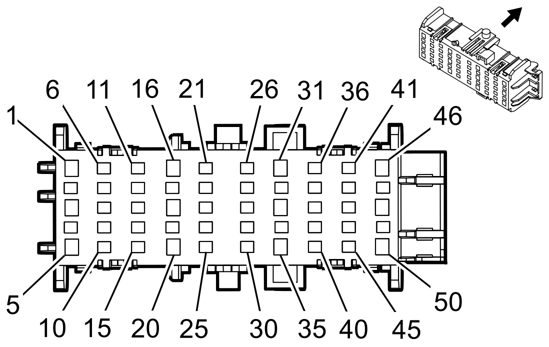
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

X61A Junction Block - Instrument Panel X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	GY/BK	1570	Front Axle Actuator Control	I	NP0 or NQH
3-10	-	-	-	Not Occupied	-	-
11	0.35	GY/L-GN	2555	Rear Park Assist Disable Signal	I	UD5 or UD7
12-15	-	-	-	Not Occupied	-	-
16	2.5	RD/L-GN	965		II	5W4 or 9C1
17	-	-	-	Not Occupied	-	-
18	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	II	-
19	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
20	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	II	-
21	0.5	D-BU/L-GN	961		I	5W4 or 9C1
22	0.35	VT	185	Low Washer Fluid Indicator Control	I	-
23	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	I	-
24	0.5	BN	7634	Integrated Trailer Brake Contoller Redundant Manual Apply Signal	I	JL1

25	0.35	GY	5697	Child Lockout Indicator	I	-
26	0.5	D-BU/RD	7632	Integrated Trailer Brake Controller Switch 5 Volt Reference	I	JL1
27	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	I	JL1
28	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	I	-
29	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	I	JL1
30	0.5	D-BU/L-GN	963		I	5W4 or 9C1
31	2.5	RD/L-GN	966		II	5W4 or 9C1
32	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
33	0.5 0.5	VT/BN VT/BN	300 300	Run Ignition 3 Voltage Run Ignition 3 Voltage	II	5W4 or 9C1
34	0.5	D-BU/L-GN	962		I	5W4 or 9C1
35	2.5	RD/L-GN	967		II	5W4 or 9C1
36	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	I	JF4
37	-	-	-	Not Occupied	-	-
38	0.5	D-BU/L-GN	964		I	5W4 or 9C1
39	1	D-BU/VT	1134	Park Brake Switch Signal	I	-
40	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	UFL or UGN
41	0.5	L-GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	I	-
42	0.35	L-GN/GY	5286	Adjustable Pedal Switch Forward Signal	I	JF4
43	0.35	L-GN/VT	1601	Steering Column Lock Signal	I	BTM
44	0.5	WH/D-BU	3691	Trailer Brake Apply Signal	I	-
45	0.35	L-GN/BN	5852	Rear Park Assist LED Disable Signal	I	UD5 or UD7
46	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage	II	-
47	0.5	WH	6816	Indicator Dimming Control	I	-
48	2.5	RD/L-GN	968		II	5W4 or 9C1
49	0.5	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	I	-
50	2.5	BK	2550	Ground	II	-

X61A Junction Block - Instrument Panel X2



Connector Part Information

Harness Type: Body

OEM Connector: 15501742

Service Connector: 19329464

Description: 50-Way F 1.5, 2.8 OCS Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13575543	J-35616-35 (VT)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

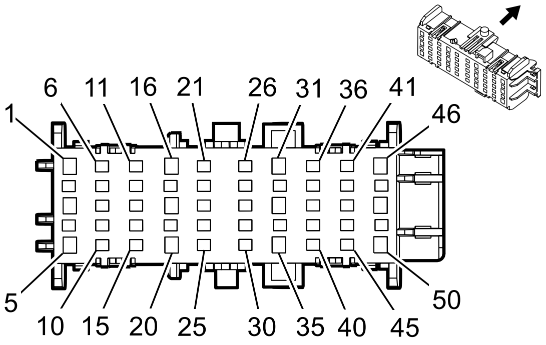
X61A Junction Block - Instrument Panel X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	4	RD/GY	1342	Battery Positive Voltage	III	NP0 or NQH
4	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	I	-
5	0.5	RD/L-GN	3140	Battery Positive Voltage	II	UFL or UGN
6	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
7	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
8	0.35	WH/RD	6207	Memory Sensor High Reference	I	JF4 with A45
9	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	I	DD8
10	0.35	YE/WH	1690	Automatic Day/Night Mirror Signal	I	DD8
11	0.35	D-BU	5952	Adjustable Pedal Position Sensor Brake Signal	I	JF4 with A45
12	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	I	JF4
13-14	-	-	-	Not Occupied	-	-
15	0.5	L-GN/WH	24	Backup Lamp Supply Voltage	I	DD8

16	2.5	YE/BN	1569	Transfer Case Lock Solenoid Control	II	NP0 or NQH
17	-	-	-	Not Occupied	-	-
18	4	BK	550	Ground	III	NP0 or NQH
19	0.35	VT/WH	5234	Passenger Seat Belt Indicator	I	-
20	0.35	L-GN	6112	Power Lift Gate On/Off Switch Signal	II	TB5 or TC2
21	1.5	L-GN/VT	5130	Adjustable Pedal Actuator Forward Control	I	JF4
22	0.35	BK/GY	6206	Memory Sensor Low Reference	I	JF4 with A45
23	0.5 0.5	WH/BN WH/BN	6815 6815	Inadvertent Power Control Inadvertent Power Control	I	- D07 without DCK
24	0.35	L-GN	2308	Passenger Air Bag Off Indicator Control	I	-
25	-	-	-	Not Occupied	-	-
26	0.35	D-BU/GY	7473	Incremental Encoder Impulse Signal	I	NP0 or NQH
27	0.35	VT	7476	Incremental Encoder Sensor Return	I	NP0 or NQH
28	-	-	-	Not Occupied	-	-
29	0.5	GY	157	Interior Lamp Control	I	-
30	0.35	GY	156	Courtesy Lamp Switch Signal	I	-
31	4	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	III	NP0 or NQH
32	0.35	YE	7474	Incremental Encoder Direction Signal	I	NP0 or NQH
33	0.5	VT/GY	1054	Stop Lamp Supply Voltage	II	-
34	-	-	-	Not Occupied	-	-
35	2.5	RD/L-GN	242	Battery Positive Voltage	II	-
36	0.35	WH/L-GN	7475	Incremental Encoder Sensor (8V) Supply	I	NP0 or NQH
37	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator	I	NP0 or NQH
38	0.35	VT/YE	5985	Accessory Wakeup Serial Data	I	NP0 or NQH
39	-	-	-	Not Occupied	-	-
40	0.35	GY/BK	6113	Rear Lift Gate Open/Close Switch Signal	I	TB5 or TC2
41-42	-	-	-	Not Occupied	-	-
43	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	UGN with Z75
44	0.5	WH/D-BU	3691	Trailer Brake Apply Signal	I	-
45	-	-	-	Not Occupied	-	-
46	4	YE/GY	1552	Transfer Case Motor Clockwise Control	III	NP0 or NQH

47	0.5	L-GN/GY	817	Vehicle Speed Signal	I	-
48	2.5	D-BU	47	Trailer Auxiliary Supply Voltage	II	-
49	0.35	WH	3152	Lane Departure Warning Indicator Control	I	UGN with Z75
50	0.35	VT/YE	43	Accessory Voltage	II	-

X61A Junction Block - Instrument Panel X3



Connector Part Information

Harness Type: Headliner

OEM Connector: 15501745

Service Connector: 19329467

Description: 50-Way F 1.5, 2.8 OCS Series (BU)

Terminal Part Information

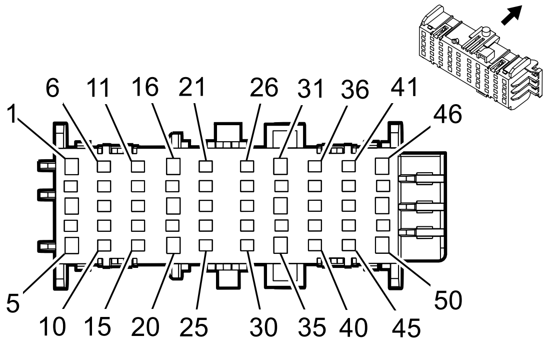
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

X61A Junction Block - Instrument Panel X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.5	RD/L-GN	3140	Battery Positive Voltage	II	UFL or UGN
4	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	I	-
5-7	-	-	-	Not Occupied	-	-
8	0.35	YE/WH	1690	Automatic Day/Night Mirror Signal	I	DD8
9	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	I	DD8
10-12	-	-	-	Not Occupied	-	-
13	0.5	L-GN/RD	24	Backup Lamp Supply Voltage	I	DD8
14-16	-	-	-	Not Occupied	-	-
17	0.35	L-GN/BK	2515	Keypad Supply Voltage	I	UE1
18	0.35	L-GN	6112	Power Lift Gate On/Off Switch Signal	II	TB5 or TC2
19	0.35	VT/WH	5234	Passenger Seat Belt Indicator	I	-
20	-	-	-	Not Occupied	-	-
21	0.35	L-GN/BK	2514	Keypad Signal	I	UE1

22	0.35	YE/BN	2516	Keypad Green LED	I	UE1
23	-	-	-	Not Occupied	-	-
24	0.35	L-GN/RD	2308	Passenger Air Bag Off Indicator Control	I	-
25	0.5	WH/BN	6815	Inadvertent Power Control	I	-
26	-	-	-	Not Occupied	-	-
27	0.5	YE	6817	LED Backlight Dimming Control	I	-
28	0.35	GY/D-BU	156	Courtesy Lamp Switch Signal	I	-
29	0.5	GY	157	Interior Lamp Control	I	-
30-35	-	-	-	Not Occupied	-	-
36	0.35	BN/WH	2517	Keypad Red LED	I	UE1
37	-	-	-	Not Occupied	-	-
38	0.35	GY/BK	6113	Rear Lift Gate Open/Close Switch Signal	I	TB5 or TC2
39-40	-	-	-	Not Occupied	-	-
41	0.35	GY/L-GN	328	Interior Lamp Defeat Switch Signal	I	-
42	0.35	VT/L-GN	7558	LED Ambient Lighting Control 2	I	-
43-44	-	-	-	Not Occupied	-	-
45	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	UFL or UGN without Z75
46	2.5	BK	1050	Ground	II	-
47	0.35	L-GN	5060	Low Speed GMLAN Serial Data	I	UFL or UGN without Z75
48	-	-	-	Not Occupied	-	-
49	0.35	WH	3152	Lane Departure Warning Indicator Control	I	UFL or UGN without Z75
50	-	-	-	Not Occupied	-	-

X61A Junction Block - Instrument Panel X4



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15501744

Service Connector: 19329466

Description: 50-Way F 1.5, 2.8 OCS Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

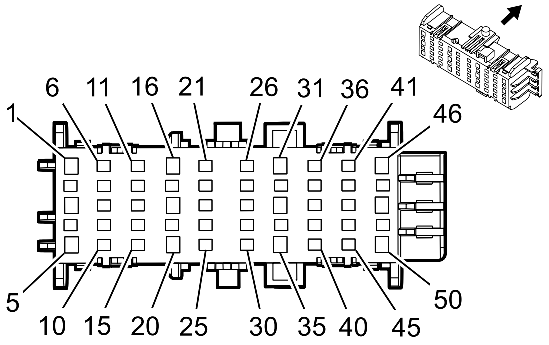
X61A Junction Block - Instrument Panel X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.35	YE/VT	2516	Keypad Green LED	I	UE1
3	0.35	BK/L-GN	552	Sensor Low Reference	II	-
4	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
5	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
6	0.5	YE	6817	LED Backlight Dimming Control	I	-
7	0.35	L-GN/WH	2514	Keypad Signal	I	UE1
8	0.35	GY/RD	598	5 Volt Reference	I	-
9	0.35	WH/L-GN	526	Stop Lamp Switch Signal	I	-
10	0.35	D-BU/YE	1693	Four Wheel Drive Switch Signal	I	NP0 or NQH
11	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	UFL or UGN without Z75
12-13	-	-	-	Not Occupied	-	-
14	0.35	BN	1560	Neutral Indicator Control	I	NQH
15	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5 Volt Reference	I	NP0 or NQH

16	2.5	BK	1050	Ground	II	-
17-18	-	-	-	Not Occupied	-	-
19	0.35	L-GN/BK	2515	Keypad Supply Voltage	I	UE1
20	-	-	-	Not Occupied	-	-
21	0.5	VT/L-GN	7558	LED Ambient Lighting Control 2	I	-
22	0.35	BN/WH	2517	Keypad Red LED	I	UE1
23	0.35	BN/BK	1566	4 HI Indicator Control	I	NP0 or NQH
24	0.35	VT/WH	1565	4 LO Indicator Control	I	NQH
25	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	NP0 or NQH
26	0.35	WH	3152	Lane Departure Warning Indicator Control	I	UFL or UGN without Z75
27	0.35	GY/L-GN	328	Interior Lamp Defeat Switch Signal	I	-
28-29	-	-	-	Not Occupied	-	-
30	0.35	GY/L-GN	1561	AWD Indicator Control	I	NP0 or NQH
31	1.5	RD/YE	2340	Battery Positive Voltage	II	-
32	0.5	BK/WH	1851	Signal Ground	I	-
33	0.75	BK/WH	1851	Signal Ground	II	-
34	0.35	BK/WH	1851	Signal Ground	I	BTM
35	2.5	BK/WH	1851	Signal Ground	II	-
36	-	-	-	Not Occupied	-	-
37	0.35	BK/WH	1851	Signal Ground	I	UV6
38	0.5	BK/WH	1851	Signal Ground	I	-
39	0.35	BK/WH	1851	Signal Ground	I	UV6
40	0.35	L-GN/BK	1563	2 HI Indicator Control	I	NP0 or NQH
41	0.35	BK/WH	1851	Signal Ground	I	UEU without UV6
	0.35	BK/WH	1851	Signal Ground		J71
42	0.35	BK/WH	1851	Signal Ground	I	-
43	0.35	BK/WH	1851	Signal Ground	I	D07
44	0.35	BK	2550	Ground	I	IO5 or IO6 with D07
45	0.35	BK	2550	Ground	I	UE1
46	0.75	BK	2550	Ground	II	IO5 or IO6
47	0.35	BK	2550	Ground	I	-

48	0.75	BK	2550	Ground	II	TG5 or U42
49	0.35	BK	2550	Ground	I	U42
50	0.75	BK	2550	Ground	II	-

X61A Junction Block - Instrument Panel X5



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15501743

Service Connector: 19329465

Description: 50-Way F 1.5, 2.8 OCS Series (NA)

Terminal Part Information

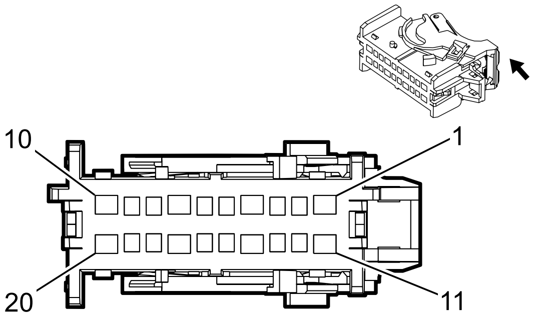
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X61A Junction Block - Instrument Panel X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
2	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	II	-
3	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
4-5	-	-	-	Not Occupied	-	-
6	0.35	GY	5697	Child Lockout Indicator	II	-
7	0.5	BN	7634	Integrated Trailer Brake Contoller Redundant Manual Apply Signal	II	JL1
8	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	II	-
9	0.35	VT	185	Low Washer Fluid Indicator Control	II	-
10	0.5	D-BU/L-GN	961		II	5W4 or 9C1
11	0.5	D-BU/L-GN	963		II	5W4 or 9C1
12	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	II	JL1
13	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	II	-
14	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	II	JL1
15	0.5	D-BU/RD	7632	Integrated Trailer Brake Controller Switch 5 Volt Reference	II	JL1

16	-	-	-	Not Occupied	-	-
17	0.5	D-BU/L-GN	962		II	5W4 or 9C1
18	0.5 0.5	VT/BN VT/BN	300 300	Run Ignition 3 Voltage Run Ignition 3 Voltage	I	KI4 or KI5 NP0 or NQH
19	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	II	-
20-21	-	-	-	Not Occupied	-	-
22	0.5	D-BU/VT	1134	Park Brake Switch Signal	II	-
23	0.5	D-BU/L-GN	964		II	5W4 or 9C1
24	-	-	-	Not Occupied	-	-
25	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	II	JF4
26	0.35	L-GN/BN	5852	Rear Park Assist LED Disable Signal	II	UD5 or UD7
27	0.5	WH/D-BU	3691	Trailer Brake Apply Signal	II	-
28	0.35	L-GN/VT	1601	Steering Column Lock Signal	II	BTM
29	0.35	L-GN/GY	5286	Adjustable Pedal Switch Forward Signal	II	JF4
30	0.5	L-GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	II	JL1
31	0.35	BK	2550	Ground	I	-
32	0.5	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	II	-
33	-	-	-	Not Occupied	-	-
34	0.5	WH	6816	Indicator Dimming Control	II	-
35-36	-	-	-	Not Occupied	-	-
37	0.35 0.35	WH WH	6816 6816	Indicator Dimming Control Indicator Dimming Control	II	NP0 or NQH DCK
38	0.35 0.35	WH WH	6816 6816	Indicator Dimming Control Indicator Dimming Control	II	Z75 -
39	0.5	WH	6816	Indicator Dimming Control	II	Z75
40-44	-	-	-	Not Occupied	-	-
45	0.35	GY/L-GN	2555	Rear Park Assist Disable Signal	II	UD5 or UD7
46-50	-	-	-	Not Occupied	-	-

X61A Junction Block - Instrument Panel X7 (AYE, 5W4 or 9C1)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13924036

Service Connector: 19328970

Description: 20-Way F 1.5, 2.8 Series (NA)

Terminal Part Information

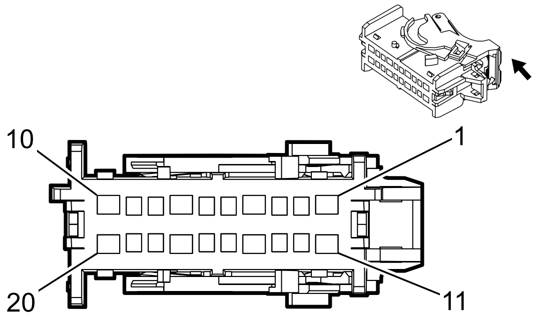
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X61A Junction Block - Instrument Panel X7 (AYE, 5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/L-GN	968		I	5W4 or 9C1
2-3	-	-	-	Not Occupied	-	-
4	2.5	RD/L-GN	967		I	5W4 or 9C1
5-6	-	-	-	Not Occupied	-	-
7	1.5	RD	2340	Battery Positive Voltage	I	AYE
8	1.5 0.5	YE VT/YE	43 43	Accessory Voltage	II	AYE 5W4 or 9C1
9	-	-	-	Not Occupied	-	-
10	1.5 0.5	BK BK	1050 1050	Ground	I	AYE 5W4 or 9C1
11	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage	I	5W4 or 9C1
12-13	-	-	-	Not Occupied	-	-
14	2.5	RD/L-GN	966		I	5W4 or 9C1
15-18	-	-	-	Not Occupied	-	-
19	0.5	L-GN/GY	817	Vehicle Speed Signal	II	5W4 or 9C1

20	2.5	RD/L-GN	965		I	5W4 or 9C1

X61A Junction Block - Instrument Panel X8



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 15522322

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 1.5, 2.8 Series (BK)

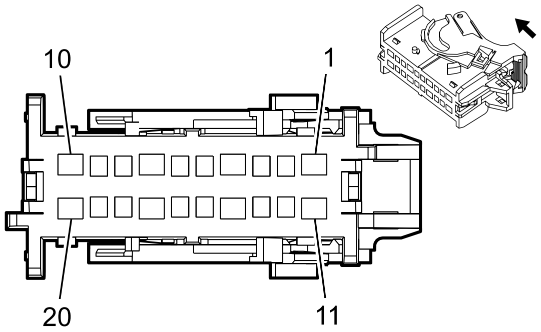
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

X61A Junction Block - Instrument Panel X8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-7	-	-	-	Not Occupied	-	-
8	0.5	WH/L-GN	526	Stop Lamp Switch Signal	II	-
9	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
10	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
11	-	-	-	Not Occupied	-	-
12	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
13	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
14	0.5	WH/RD	6207	Memory Sensor High Reference	I	JF4 with A45
15	0.5	D-BU	5952	Adjustable Pedal Position Sensor Brake Signal	II	JF4 with A45
16	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	II	JF4
17	0.5	BK/GY	6206	Memory Sensor Low Reference	I	JF4 with A45
18	1.5	L-GN/VT	5130	Adjustable Pedal Actuator Forward Control	II	JF4
19	0.5	BK/L-GN	552	Sensor Low Reference	II	-
20	0.5	GY/RD	598	5 Volt Reference	I	-

X61A Junction Block - Instrument Panel X9 (NP0 or NQH)



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 15522323

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 1.5, 2.8 OCS Series (GY)

Terminal Part Information

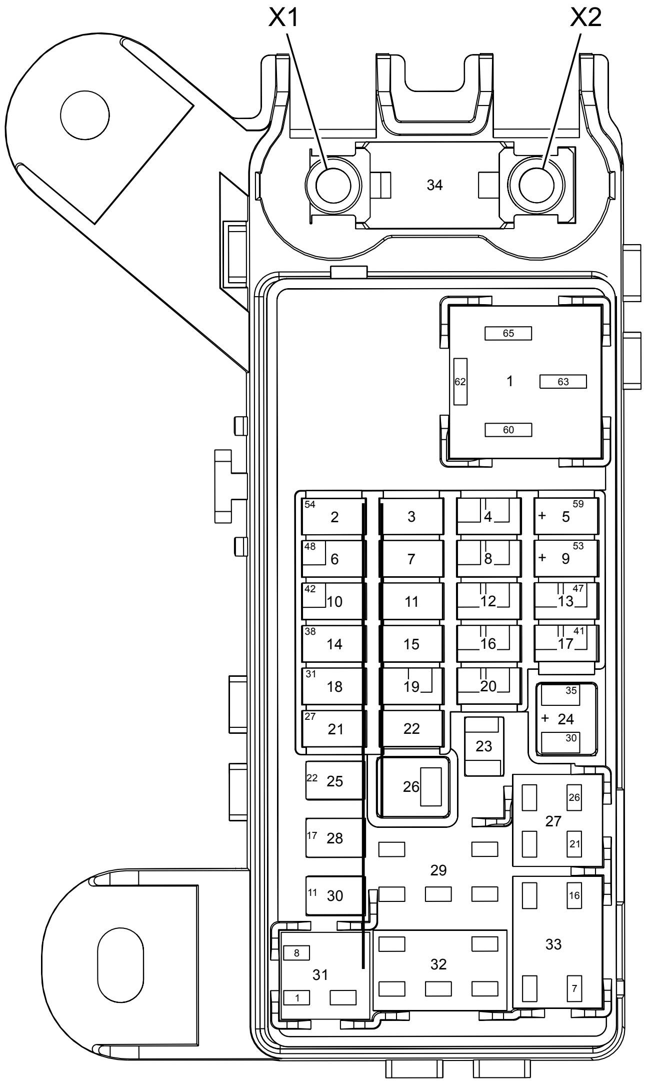
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

X61A Junction Block - Instrument Panel X9 (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE/BN	1569	Transfer Case Lock Solenoid Control	I	-
2	0.35	D-BU/YE	1693	Four Wheel Drive Switch Signal	II	-
3	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5 Volt Reference	II	-
4	0.35	BN/BK	1566	4 HI Indicator Control	I	-
5	0.35	VT/WH	1565	4 LO Indicator Control	II	-
6	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	II	-
7	0.35	VT/YE	5985	Accessory Wakeup Serial Data	I	-
8	0.35	L-GN/BK	1563	2 HI Indicator Control	II	-
9	0.35	GY/L-GN	1561	AWD Indicator Control	II	-
10	0.5	GY/BK	1570	Front Axle Actuator Control	I	-
11	3	RD/GY	1342	Battery Positive Voltage	I	-
12	0.35	BN	1560	Neutral Indicator Control	II	NQH
13	0.35	VT	7476	Incremental Encoder Sensor Return	II	-
14	3	BK	550	Ground	I	-

15	0.35	D-BU/GY	7473	Incremental Encoder Impulse Signal	II	-
16	0.35	YE	7474	Incremental Encoder Direction Signal	II	-
17	4	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	I	-
18	0.35	WH/L-GN	7475	Incremental Encoder Sensor (8V) Supply	II	-
19	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator	II	-
20	4	YE/GY	1552	Transfer Case Motor Clockwise Control	I	-

X53A Fuse Block - Rear Body Top View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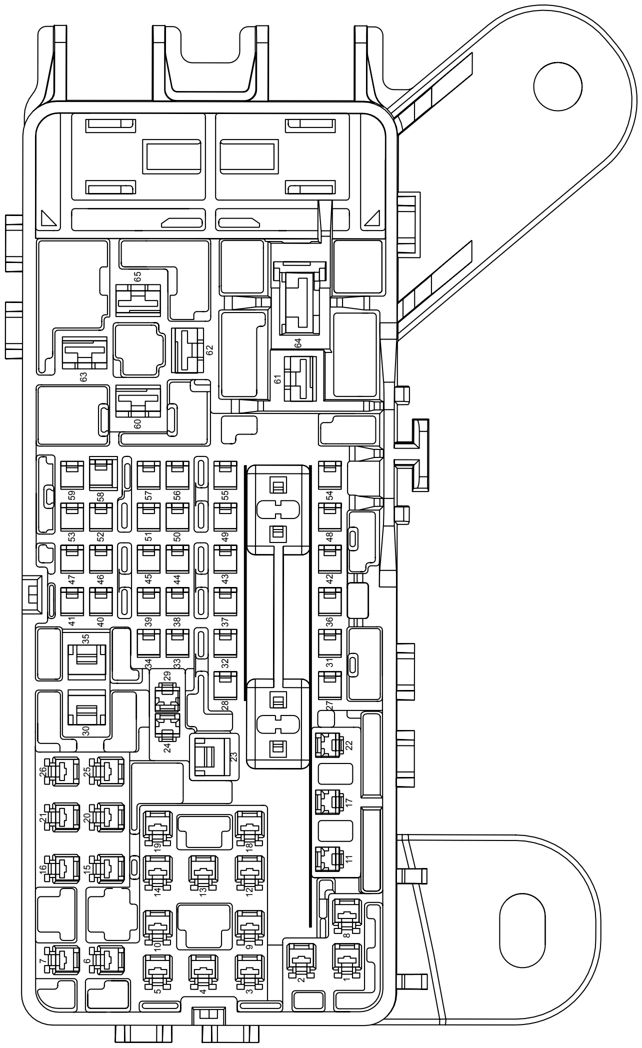
X53A Fuse Block - Rear Body Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
2	-	F2RA	15A	K29R Seat Heating Control Module - Rear (KA6)
3	-	F3RA	15A	K29R Seat Heating Control Module - Rear (KA6)
4	-	F4RA	15A	E17D Outside Rearview Mirror Glass - Driver (DL3 or DL8 or DR4), E17P Outside Rearview Mirror Glass - Passenger (DL3 or DL8 or DR4)
5	-	F5RA	15A	Not Used
6	-	F6RA	-	Not Used
7	-	F7RA	10A	KR95A Liftgate Unlatch Relay (TB4)
8	-	F8RA	-	Not Used
9	-	F9RA	10A	B159L Glass Breakage Sensor - Left (UTV)
10	-	F10RA	-	Not Used

10		F10RA		Not Used
11	-	F11RA	10A	KR162 Liftgate Window Unlatch Relay
12	-	F12RA	-	Not Used
13	-	F13RA	-	Not Used
14	-	F14RA	10A	K39 Liftgate Control Module (TB5)
15	-	F15RA	20A	M45 Rear Wiper Motor
16	-	F16RA	-	Not Used
17	-	F17RA	-	Not Used
18	-	F18RA	30A	K8A Blower Motor Control Module - Auxiliary
19	-	F19RA	-	Not Used
20	-	F20RA	-	Not Used
21	-	F21RA	20A	Folding Seat Motor - Left 2nd Row (ATN or ATT), Folding Seat Motor - Right 2nd Row (ATN or ATT)
22	-	F22RA	10A	KR57 Rear Fog Lamp Relay (T79)
23	-	F23RA	-	Not Used
24	-	F24RA	30A	F9RA (UTV), E18 Rear Defogger Grid
25	-	F25RA	30A	K39 Liftgate Control Module (TB5)
26	-	F26RA	-	Not Used
28	-	F28RA	30A	K169 Folding Seat Control Module - 3rd Row (AS8)
30	-	F30RA	20A	X80RL Accessory Power Receptacle - Rear Compartment Left, X80RR Accessory Power Receptacle - Rear Compartment Right
1	—	KR5 Rear Defogger Relay	—	F5RA, F9RA, F24RA
27	—	KR95A Liftgate Unlatch Relay	—	M30 Liftgate Latch (TB4)
29	—	—	—	Not Used
31	—	KR4B Outside Rearview Mirror Heater Relay	—	E17D Outside Rearview Mirror Glass — Driver (DL3, DL8 or DR4), E17P Outside Rearview Mirror Glass — Passenger (DL3, DL8 or DR4), F4RA
32	—	KR57 Rear Fog Lamp Relay	—	E29LR Fog Lamp — Left Rear (T79), E29RR Fog Lamp — Right Rear (T79)
33	—	KR162 Liftgate Window Unlatch Relay	—	M33 Liftgate Window Latch Assembly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Connector Part Information

Harness Type: Body

OEM Connector: 13940427

Service Connector: Not Available

Description: Wire Entry Fuse Block (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13575719	J-35616-4A (PU)	J-38125-553	12110844	4	C	A
III	13579978	J-35616-43 (RD)	J-38125-553	15410292	23	G/F	G
IV	13579923	J-35616-4A (PU)	J-38125-553	12110842	4	A	B
V	13579978	J-35616-43 (RD)	J-38125-553	15410292	23	G/F	G/F

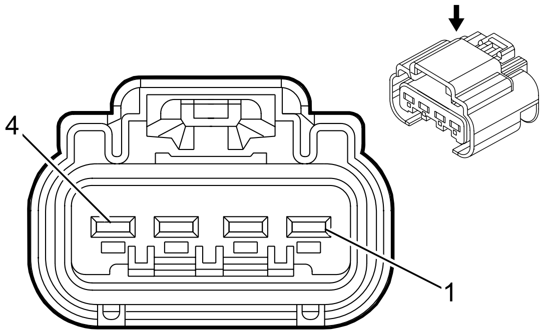
VI	13575719	J-35616-4A (PU)	J-38125-553	12110844	4	E	A
VII	13579958	J-35616-4A (PU)	J-38125-11A	15324340	19	F	G
VIII	13575288	J-35616-42 (RD)	J-38125-11A	7116-4120-02	9	E	A
IX	Pending	J-35616-42 (RD)	J-38125-11A	7116-4122-02	10	D	G
X	Pending	J-35616-44 (YE)	J-38125-558	12110127	19	Not Available	Not Available

X53A Fuse Block - Rear Body (Wire Entry)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/VT	340	Battery Positive Voltage	I	DL3, DL8 or DR4
2	0.5	BN/VT	193	Rear Defog Relay Control	I	DL3, DL8 or DR4
3	0.35	RD/VT	340	Battery Positive Voltage	I	T79
4	-	-	-	Not Occupied	-	-
5	0.35	GY/YE	317	Fog Lamp Relay Coil Control	I	T79
6	0.35	GY/YE	6188	Lift Glass/Trunk Motor Release Control	I	-
7	0.5	RD/YE	4340	Battery Positive Voltage	I	-
8	0.5	BK	1150	Ground	I	DL3, DL8 or DR4
9	0.5	BK	1150	Ground	I	T79
10	0.5	YE/GY	122	Rear Fog Lamp Control	I	T79
11	1.5 1.5	RD/D-BU RD/D-BU	6040 6040	Battery Positive Voltage	I	-
12-14	-	-	-	Not Occupied	-	-
15	0.5	D-BU/YE	6795	Lift Glass/Trunk Motor Release Control 2	I	-
16	0.5	BK	1150	Ground	I	-
17	2.5	RD/D-BU	1240	Battery Positive Voltage	I	AS8
18-19	-	-	-	Not Occupied	-	-
20	0.5	GN/BN	5706	Endgate Latch Relay Control	I	TB4
21	0.5	RD/BN	4240	Battery Positive Voltage	I	TB4
22	3	RD/GY	7040	Battery Positive Voltage	I	TB5
23-24	-	-	-	Not Occupied	-	-
25	0.5	BU/WH	6128	Rear Closure Unlatch Motor Unlatch Control	I	TB4
26	0.35	YE	5704	Endgate Latch Relay Coil Control	I	TB4
27	0.75	RD/D-BU	1240	Battery Positive Voltage	II	ATN or ATT
28	0.5	RD/VT	340	Battery Positive Voltage	I	T79

29	-	-	-	Not Occupied	-	-
30	4	BN/VT	938		III	-
31	2.5	RD/GY	1740	Battery Positive Voltage	IV	-
32-34	-	-	-	Not Occupied	-	-
35	2.5	BN/VT	293	Rear Defog Element Supply Voltage	V	-
36	0.5	RD/D-BU	840	Battery Positive Voltage	VI	TB5
37	0.75	RD/YE	3040	Battery Positive Voltage	II	-
38-42	-	-	-	Not Occupied	-	-
43	0.5	RD/YE	4340	Battery Positive Voltage	VI	-
44-48	-	-	-	Not Occupied	-	-
49	0.5	RD/BN	4240	Battery Positive Voltage	I	TB4
50-51	-	-	-	Not Occupied	-	-
52	2.5	BN/VT	293	Rear Defog Element Supply Voltage	IV	UTT or UTV
53	0.5	BN/VT	293	Rear Defog Element Supply Voltage	I	UTV
54	0.75	RD/L-GN	5140	Battery Positive Voltage	II	KA6
55	0.75	RD/L-GN	6140	Battery Positive Voltage	II	KA6
56	0.5	RD/VT	340	Battery Positive Voltage	I	DL3, DL8 or DR4
57	2.5	BN/YE	2267	Mirror Heating Element Supply Voltage	VI	DL3, DL8 or DR4
58	4	BN/VT	938		VII	-
59	-	-	-	Not Occupied	-	-
60	0.5 0.5	BK BK	1150 1150	Ground	VIII	-
61	4	RD/D-BU	42	Battery Positive Voltage	IX	-
62	4	BN/VT	938		IX	-
63	4	RD/D-BU	42	Battery Positive Voltage	IX	-
64	6	RD/WH	942		X	-
65	0.5 0.5	BN/VT BN/VT	193 193	Rear Defog Relay Control	VIII	- DL3, DL8 or DR4

A7 Fuel Pump and Level Sensor Assembly



Connector Part Information

Harness Type: Chassis

OEM Connector: 13527865

Service Connector: 13587174

Description: 4-Way F 280 GT Series, Sealed (NA)

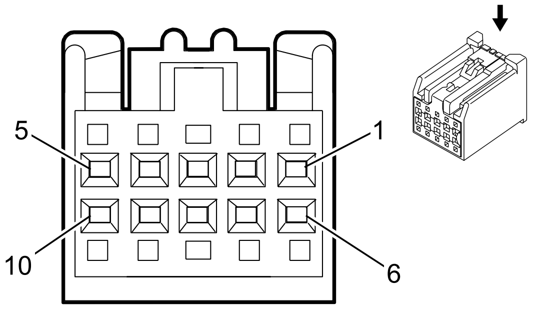
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	J-38125-553	15392777	23	D	5
II	13578915	J-35616-4A (PU)	J-38125-553	15304719	19	E	5

A7 Fuel Pump and Level Sensor Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY	120	Fuel Pump Supply Voltage	I	-
2	1.5	BK/GN	1580	Fuel Pump Low Reference	I	-
3	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	II	-
4	0.5	D-BU/VT	1589	Primary Fuel Level Sensor Signal	II	-

A10 Inside Rearview Mirror



Connector Part Information

Harness Type: Headliner

OEM Connector: 13815336

Service Connector: 13577390

Description: 10-Way F 0.64 Kaizen Series (BK)

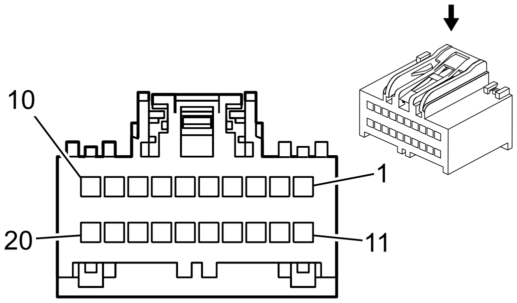
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-215A	SAIT-A03T-M064	14	P	P

A10 Inside Rearview Mirror

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/RD	24	Backup Lamp Supply Voltage	I	-
2	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	-
3	0.35	L-GN/D-BU	2514	Keypad Signal	I	-
4	0.35	L-GN/BK	2515	Keypad Supply Voltage	I	-
5	0.5	BK	1050	Ground	I	-
6	0.35	YE/BN	2516	Keypad Green LED	I	-
7	0.35	BN/WH	2517	Keypad Red LED	I	-
8	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	I	-
9	0.35	YE/WH	1690	Automatic Day/Night Mirror Signal	I	-
10	-	-	-	Not Occupied	-	-

A11 Radio X1



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15491304

Service Connector: 15126710

Description: 20-Way F USCAR 64 Series (GY)

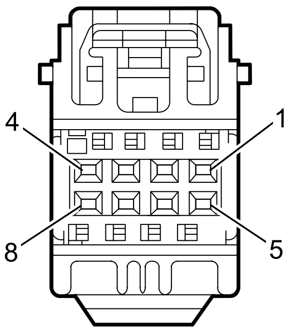
Terminal Part Information

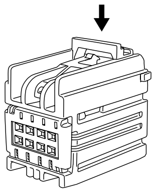
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13327119	J-35616-64B (L-BU)	J-38125-215A	SAIT-A03T-M064	14	P	P

A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-3	-	-	-	Not Occupied	-	-
4	0.35	WH/D-BU	6973	Camera Signal #2 –	II	UVC
5	0.35	GY/YE	6972	Camera Signal #2 +	I	UVC
6	0.5	Bare	5842	Auxiliary Audio Screen (2)	I	-
7	0.35	D-BU	2060	Auxiliary Detection Signal	I	-
8	0.35	VT	5843	Auxiliary Audio Common Signal	I	-
9	0.35	GY	5839	Left Auxiliary Audio Signal (2)	I	-
10	0.35	L-GN	5841	Right Auxiliary Audio Signal (2)	I	-
11-12	-	-	-	Not Occupied	-	-
13	0.5	L-GN/D-BU	7532	Linear Interconnect Network Bus 10	II	-
14	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
15-18	-	-	-	Not Occupied	-	-
19	0.35	BK/YE	659	Cellular Telephone Voice Low Reference	I	UE1
20	0.35	YE	658	Cellular Telephone Voice Signal	I	UE1

A11 Radio X2





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13551679

Service Connector: 19115653

Description: 8-Way F YESC Kaizen Series (L-GY)

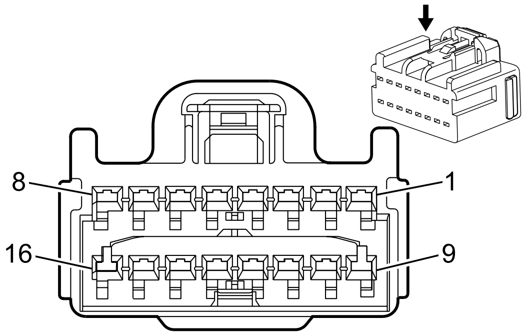
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A11 Radio X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/L-GN	3997	MOST Serial Data (-)	I	-
2	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
3	0.5	WH/L-GN	3997	MOST Serial Data (-)	I	-
4	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
5-6	-	-	-	Not Occupied	-	-
7	0.35	WH/VT	3999	MOST Control	I	-
8	-	-	-	Not Occupied	-	-

A11 Radio X3



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10847013

Service Connector: 89047090

Description: 16-Way F 1.5 Kaizen Series (GN)

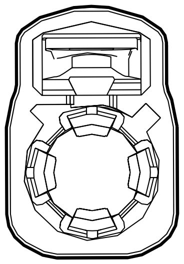
Terminal Part Information

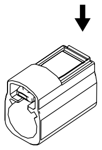
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119962	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	13575808	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	13575708	J-35616-2A (GY)	J-38125-11A	7116-4101-08	9	E	A
IV	13578891	J-35616-2A (GY)	J-38125-11A	7116-4100-08	9	E	C

A11 Radio X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU	201	Left Front Speaker (+) (1)	I	UQ3
2	0.75	YE	200	Right Front Speaker (+) (1)	I	UQ3
3	0.5	L-GN	199	Left Rear Speaker (+)	I	UQ3
4	0.5	WH	46	Right Rear Speaker (+)	I	UQ3
5-7	-	-	-	Not Occupied	-	-
8	0.75	RD/VT	340	Battery Positive Voltage	I	-
9	0.75	BN/D-BU	118	Left Front Speaker Signal (-) (1)	I	UQ3
10	0.75	YE/BK	117	Right Front Speaker Signal (-) (1)	I	UQ3
11	0.5	L-GN/BK	116	Left Rear Speaker Signal (-)	I	UQ3
12	0.5	D-BU/BK	115	Right Rear Speaker Signal (-)	I	UQ3
13-15	-	-	-	Not Occupied	-	-
16	0.75	BK	2550	Ground	I	-

A11 Radio X4





Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 12784257

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F Coax (BK)

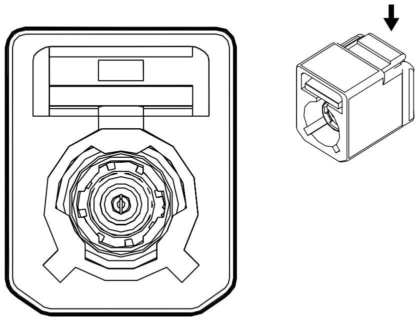
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A11 Radio X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Antenna RF Signal	I	—

A11 Radio X6 (U2M)



Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 13591282

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F Coax Type (CU)

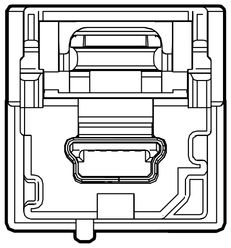
Terminal Part Information

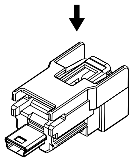
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A11 Radio X6 (U2M)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Antenna XM Signal	I	—

A11 Radio X7 (IO3)





Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13581338

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (BN)

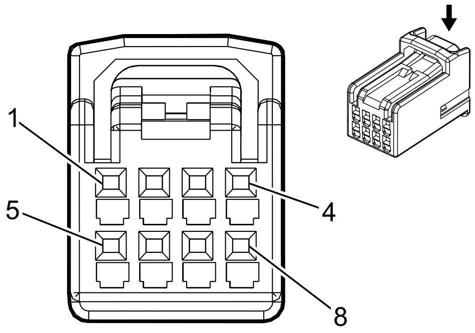
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A11 Radio X7 (IO3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Navigation Display Signal	I	—

A14D Seat Lumbar Support Pump - Driver (A45, with Y91 or Z75 without ULT)



Connector Part Information

Harness Type: Driver Seat Back

OEM Connector: MX34E08SF1

Service Connector: Service by Harness — See Part Catalog

Description: 8-Way F 0.64 Series (GY)

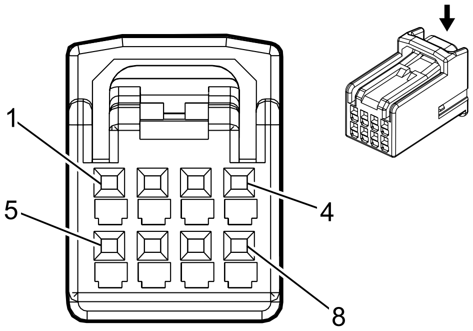
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A14D Seat Lumbar Support Pump - Driver (A45, with Y91 or Z75 without ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/BN	768	Driver Power Seat Lumbar Motor Up Control	I	-
2	0.75	VT	610	Driver Power Seat Lumbar Motor Down Control	I	-
3	0.75	YE/L-BU	767	Driver Power Seat Lumbar Motor Down Control	I	-
4	-	-	-	Not Occupied	-	-
5	0.75	L-BU	611	Driver Power Seat Lumbar Motor Forward Control	I	-
6–8	-	-	-	Not Occupied	-	-

A14P Seat Lumbar Support Pump - Passenger (Y91 or Z75 without ULT)



Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: MX34E08SF1

Service Connector: Service by Harness — See Part Catalog

Description: 8-Way F 0.64 Series (GY)

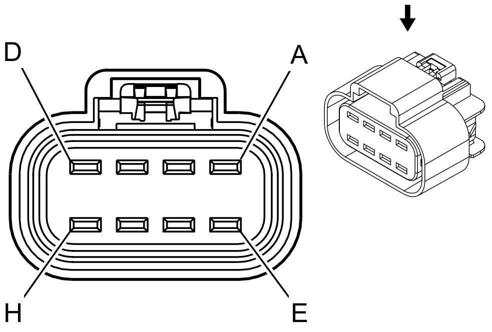
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A14P Seat Lumbar Support Pump - Passenger (Y91 or Z75 without ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/YE	793	Passenger Power Seat Lumbar Motor Up Control	I	-
2	0.75	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	-
3	0.75	L-BU/YE	792	Passenger Power Seat Lumbar Motor Down Control	I	-
4	-	-	-	Not Occupied	-	-
5	0.75	L-BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	-
6–8	-	-	-	Not Occupied	-	-

A16 Transfer Case Motor (NP0 or NQH)



Connector Part Information

Harness Type: Engine

OEM Connector: 13669205

Service Connector: 19300464

Description: 8-Way F 280 GT 5.8 Series, Sealed (BK)

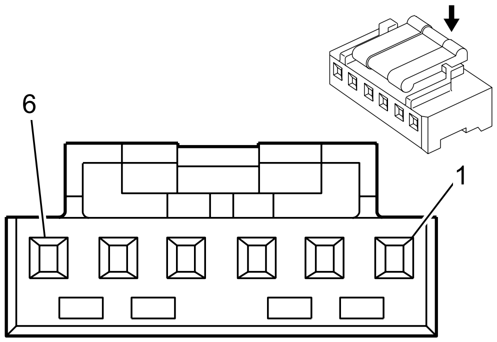
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available

A16 Transfer Case Motor (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE/GY	1552	Transfer Case Motor Clockwise Control	I	-
B	3	RD	1342	Battery Positive Voltage	I	-
C	2.5	YE/BN	1569	Transfer Case Lock Solenoid Control	I	-
D	3	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	I	-
E	0.5	D-BU/GY	7473	Incremental Encoder Impulse Signal	I	-
F	0.5	YE	7474	Incremental Encoder Direction Signal	I	-
G	0.5	WH/L-GN	7475	Incremental Encoder Sensor (8V) Supply	I	-
H	0.5	VT	7476	Incremental Encoder Sensor Return	I	-

A19D DVD Player - Driver Seat Headrest X1 (AYE)



Connector Part Information

Harness Type: Accessory Signal Harness 1A

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (RD)

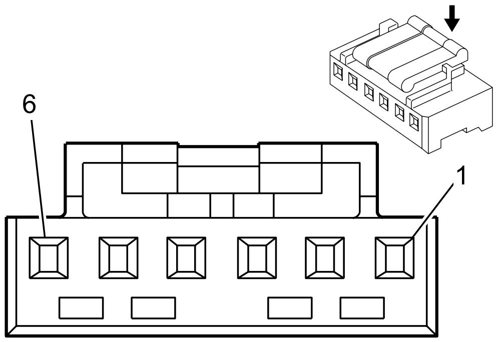
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A19D DVD Player - Driver Seat Headrest X1 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common B (-)	I	-
2	-	YE	-	DVD Video Signal B (+)	I	-
3	-	RD	-	Right Audio Signal B (+)	I	-
4	-	WH	-	Left Audio Signal B (+)	I	-
5	-	BK	-	Ground	I	-
6	-	RD	-	Ignition Voltage	I	-

A19D DVD Player - Driver Seat Headrest X2 (AYE)



Connector Part Information

Harness Type: Accessory Signal Harness 2A

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (WH)

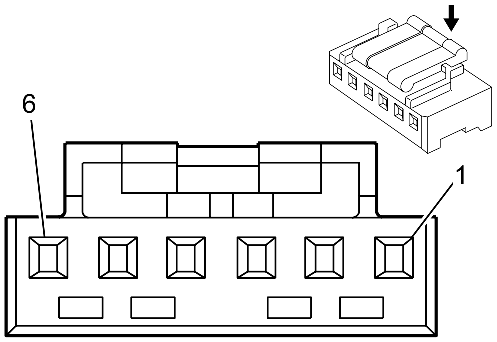
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A19D DVD Player - Driver Seat Headrest X2 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common A (-)	I	-
2	-	YE	-	DVD Video Signal A (+)	I	-
3	-	RD	-	Right Audio Signal A (+)	I	-
4	-	WH	-	Left Audio Signal A (+)	I	-
5	-	BK	-	I2C Clock Signal	I	-
6	-	RD	-	I2C Data	I	-

A19P DVD Player - Passenger Seat Headrest X1 (AYE)



Connector Part Information

Harness Type: Accessory Signal Harness 1B

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BK)

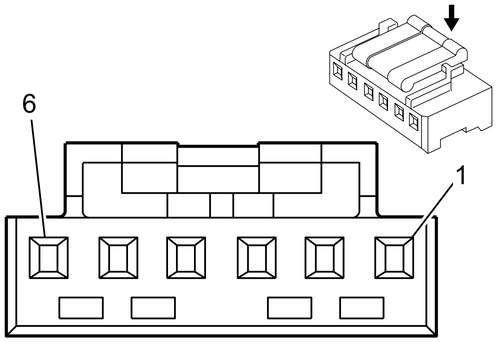
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A19P DVD Player - Passenger Seat Headrest X1 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common A (-)	I	-
2	-	YE	-	DVD Video Signal A (+)	I	-
3	-	RD	-	Right Audio Signal A (+)	I	-
4	-	WH	-	Left Audio Signal A (+)	I	-
5	-	BK	-	Ground	I	-
6	-	RD	-	Ignition Voltage	I	-

A19P DVD Player - Passenger Seat Headrest X2 (AYE)



Connector Part Information

Harness Type: Accessory Signal Harness 2B

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BU)

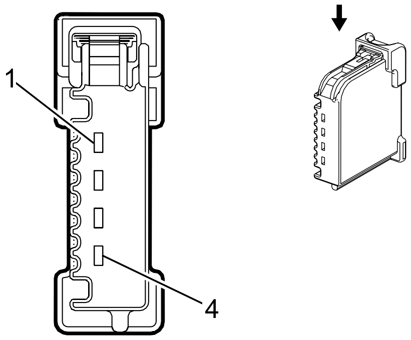
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A19P DVD Player - Passenger Seat Headrest X2 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common B (-)	I	-
2	-	YE	-	DVD Video Signal B (+)	I	-
3	-	RD	-	Right Audio Signal B (+)	I	-
4	-	WH	-	Left Audio Signal B (+)	I	-
5	-	BK	-	I2C Clock Signal	I	-
6	-	RD	-	I2C Data	I	-

A23C Liftgate Latch Assembly (except TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13607335

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 1.5 Series (BK)

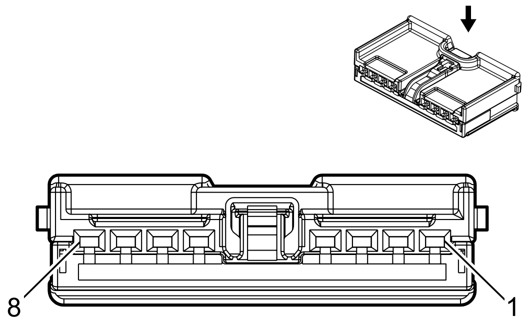
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

A23C Liftgate Latch Assembly (except TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1450	Ground	I	-
2	0.35	VT/GY	1303	Lift Gate Ajar Switch Signal (1)	I	-
3	0.5	D-BU/WH	6128	Rear Closure Unlatch Motor Unlatch Control	I	-
4	-	-	-	Not Occupied	-	-

A23C Liftgate Latch Assembly (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13827492

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 1.5 Series (BK)

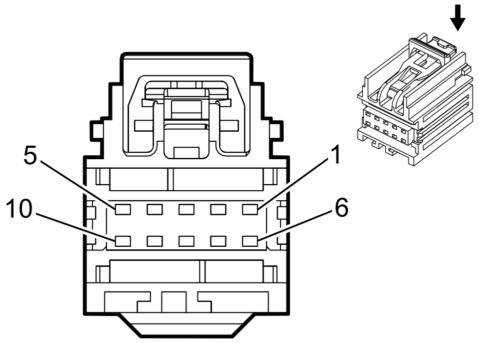
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

A23C Liftgate Latch Assembly (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	3988	Detent Lift Gate Signal	I	-
2	0.35	VT/L-GN	3987	Cinch Latch Lift Gate Signal	I	-
3	0.35	L-GN/WH	6127	Lift Gate Unlatch Switch Signal	I	-
4	0.5	GY	3986	Cinch Latch Lift Gate Stall Motor Release Signal	I	-
5	0.35	D-BU/BK	6000	Lift Gate Ajar Switch Signal (2)	I	-
6	0.5	BK/VT	5801	Lift Gate Object Sensor Low Reference	I	-
7	1	BN	5790	Lift Gate Cinch Latch Motor Open Control	I	-
8	1	D-BU/GY	5791	Lift Gate Cinch Latch Motor Close Control	I	-

A23D Door Latch Assembly - Driver



Connector Part Information

Harness Type: Driver Door

OEM Connector: 13576047

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 YESC Kaizen Series (GN)

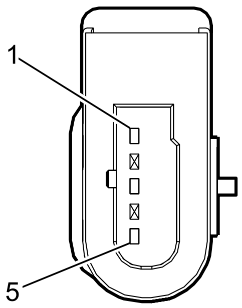
Terminal Part Information

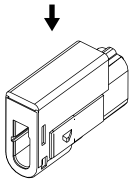
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A23D Door Latch Assembly - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	745	Left Front Door Ajar Switch Signal	I	-
2	0.35	WH/YE	3574	Driver Door Open Switch Signal	I	BTM
3	0.5	BK	1150	Ground	I	-
4	0.35	WH/VT	3270	Driver Door Lock Motor Status	I	-
5	0.35	D-BU/VT	1124	Door Lock Key Switch Unlock Signal	I	-
6	0.75	BN	5910	Door Double Lock Actuator Lock Control	I	UTT
7	0.75	GY	5911	Door Lock Actuator Lock Control 2	I	-
8	0.75	BN/BK	294	Door Lock Actuator Unlock Control	I	-
9-10	-	-	-	Not Occupied	-	-

A23LR Door Latch Assembly - Left Rear





Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 13576047

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 YESC Kaizen Series (GN)

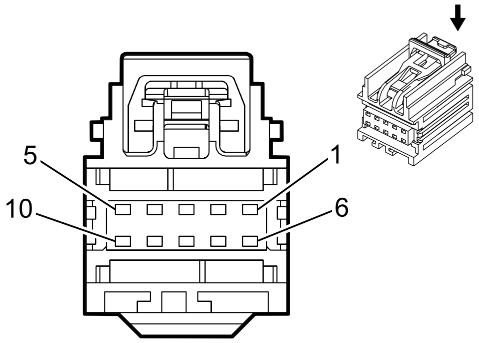
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A23LR Door Latch Assembly - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/WH	747	Left Rear Door Ajar Switch Signal	I	-
2	0.35	BN/WH	3269	Child Security Lock Motor Status Signal Left Rear	I	-
3	0.5	BK	1150	Ground	I	-
4-5	-	-	-	Not Occupied	-	-
6	0.75	BN	5910	Door Double Lock Actuator Lock Control	I	UTT
7	0.75	GY	295	Door Lock Actuator Lock Control	I	-
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	-
9	0.75	WH/D-BU	3266	Child Security Lock Motor Unlock Control	I	-
10	-	-	-	Not Occupied	-	-

A23P Door Latch Assembly - Passenger



Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13576047

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 YESC Kaizen Series (GN)

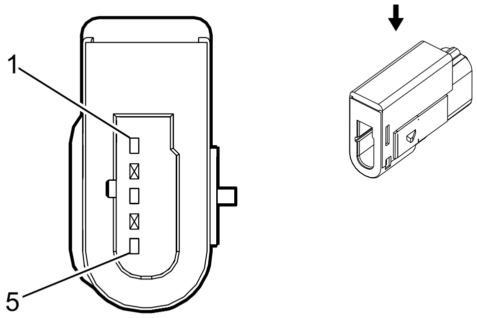
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A23P Door Latch Assembly - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.35	VT	4009	Co-Driver Door Lock Status	I	Z75
3	0.5	BK	1250	Ground	I	-
4	0.35	VT	4009	Co-Driver Door Lock Status	I	-
5	0.35	GY	746	Right Front Door Ajar Switch Signal	I	-
6-7	-	-	-	Not Occupied	-	-
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	-
9	0.75	GY	295	Door Lock Actuator Lock Control	I	-
10	0.75	BN	5910	Door Double Lock Actuator Lock Control	I	UTT

A23RR Door Latch Assembly - Right Rear



Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 13576047

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 YESC Kaizen Series (GN)

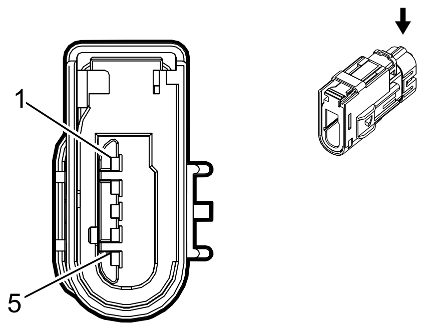
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A23RR Door Latch Assembly - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.5	BK	1250	Ground	I	-
4	0.35	GY/BK	3268	Child Security Lock Motor Status Signal Right Rear	I	-
5	0.35	GY/WH	748	Right Rear Door Ajar Switch Signal	I	-
6	-	-	-	Not Occupied	-	-
7	0.75	WH/D-BU	3266	Child Security Lock Motor Unlock Control	I	-
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	-
9	0.75	GY	295	Door Lock Actuator Lock Control	I	-
10	0.75	BN	5910	Door Double Lock Actuator Lock Control	I	-

A24D Door Handle Assembly - Driver Exterior (X88 or Z88, with ATH)



Connector Part Information

Harness Type: Driver Door

OEM Connector: 13915624

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (NA)

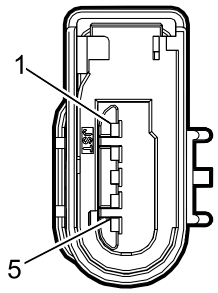
Terminal Part Information

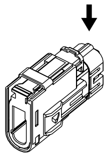
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A24D Door Handle Assembly - Driver Exterior (X88 or Z88, with ATH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN/WH	3570	Driver Door Handle Switch Signal	I	-
2	0.35	VT	3560	Passive Entry Driver Door Antenna Signal Hi	I	-
3	-	-	-	Not Occupied	-	-
4	0.35	VT/GY	3561	Passive Entry Driver Door Antenna Signal Lo	I	-
5	0.5	BK	1150	Ground	I	-

A24D Door Handle Assembly - Driver Exterior (Z75)





Connector Part Information

Harness Type: Driver Door

OEM Connector: 13934096

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (L-GY)

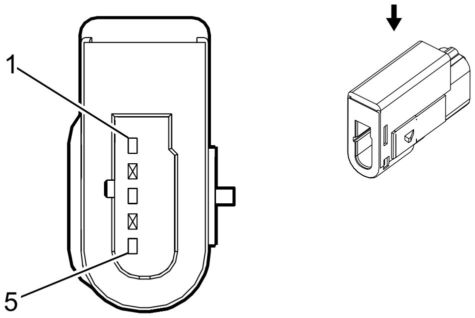
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A24D Door Handle Assembly - Driver Exterior (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN/WH	3570	Driver Door Handle Switch Signal	I	-
2	0.35	VT	3560	Passive Entry Driver Door Antenna Signal Hi	I	-
3	0.5	GY/WH	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	I	-
4	0.35	VT/GY	3561	Passive Entry Driver Door Antenna Signal Lo	I	-
5	0.5	BK	1150	Ground	I	-

A24LR Door Handle Assembly - Left Rear Exterior (X88 or Z88, with ATH)



Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 13939427

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (BN)

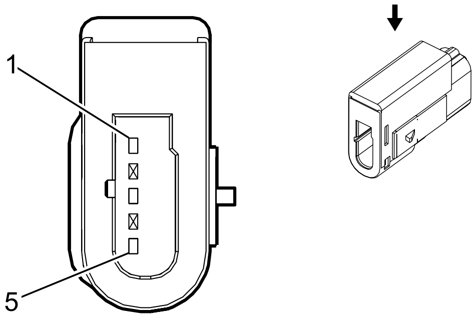
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A24LR Door Handle Assembly - Left Rear Exterior (X88 or Z88, with ATH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/YE	6157	Left Rear Door Handle Switch Signal	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	GY/L-GN	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	I	-
4	-	-	-	Not Occupied	-	-
5	0.5	BK	1150	Ground	I	-

A24LR Door Handle Assembly - Left Rear Exterior (Z75)



Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 13939427

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (BN)

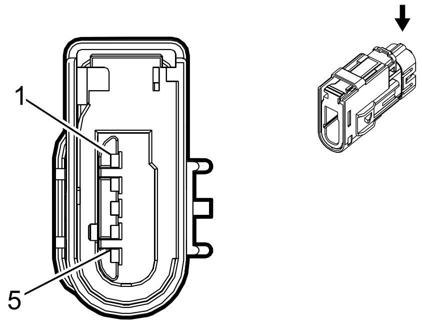
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A24LR Door Handle Assembly - Left Rear Exterior (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/YE	6157	Left Rear Door Handle Switch Signal	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	GY/L-GN	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	BK	1150	Ground	I	-

A24P Door Handle Assembly - Passenger Exterior (X88 or Z88, with ATH)



Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13915624

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (NA)

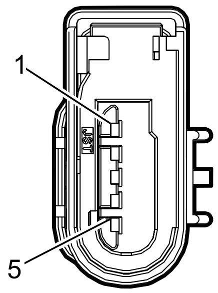
Terminal Part Information

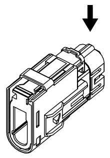
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A24P Door Handle Assembly - Passenger Exterior (X88 or Z88, with ATH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/WH	3571	Co_Driver Door Handle Switch Signal	I	-
2	0.35	L-GN/YE	3562	Passive Entry Co_Driver Door Antenna Signal Hi	I	-
3	-	-	-	Not Occupied	-	-
4	0.35	L-GN/BK	3563	Passive Entry Co_Driver Door Antenna Signal Lo	I	-
5	0.5	BK	1250	Ground	I	-

A24P Door Handle Assembly - Passenger Exterior (Z75)





Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13934096

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (L-GY)

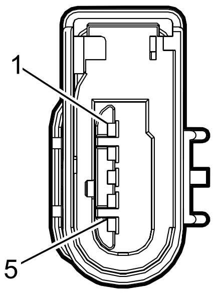
Terminal Part Information

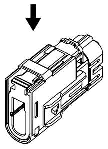
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A24P Door Handle Assembly - Passenger Exterior (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/WH	3571	Co_Driver Door Handle Switch Signal	I	-
2	0.35	L-GN/YE	3562	Passive Entry Co_Driver Door Antenna Signal Hi	I	-
3	0.5	GY/L-GN	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	I	-
4	0.35	L-GN/BK	3563	Passive Entry Co_Driver Door Antenna Signal Lo	I	-
5	0.5	BK	1250	Ground	I	-

A24RR Door Handle Assembly - Right Rear Exterior (X88 or Z88, with ATH)





Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 13915623

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (BK)

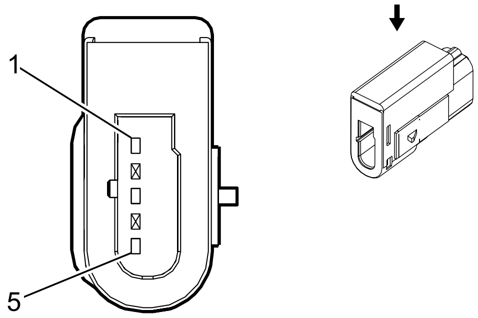
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A24RR Door Handle Assembly - Right Rear Exterior (X88 or Z88, with ATH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	6158	Right Rear Door Handle Switch Signal	I	-
2-4	-	-	-	Not Occupied	-	-
5	0.5	BK	1250	Ground	I	-

A24RR Door Handle Assembly - Right Rear Exterior (Z75)



Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 13939427

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (BN)

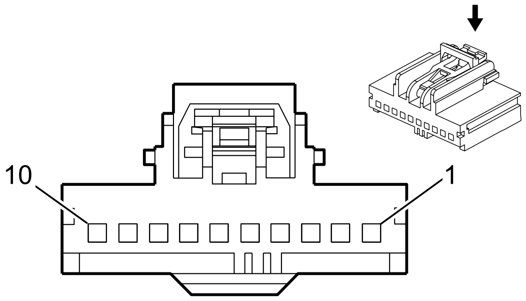
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A24RR Door Handle Assembly - Right Rear Exterior (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	6158	Right Rear Door Handle Switch Signal	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	GY/L-GN	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	I	-
4	-	-	-	Not Occupied	-	-
5	0.5	BK	1250	Ground	I	-

A33 Media Disc Player X1 (TG5)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15490628

Service Connector: 89047355

Description: 10-Way F 0.64 Kaizen Series (BK)

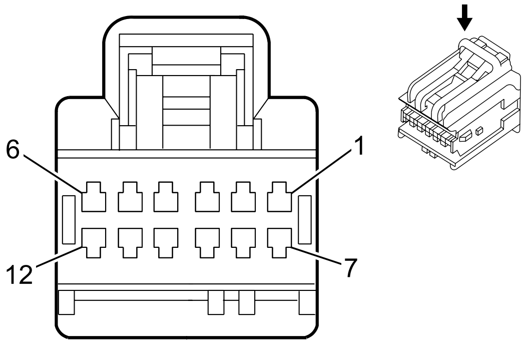
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-215A	SAIT-A03T-M064	14	P	P
II	13327118	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

A33 Media Disc Player X1 (TG5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	3999	MOST Control	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	WH/L-GN	3997	MOST Serial Data (-)	III	-
4	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
5	0.5	WH/L-GN	3997	MOST Serial Data (-)	I	-
6	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
7	-	-	-	Not Occupied	-	-
8	0.75	BK	2550	Ground	II	-
9	0.35	GY	4016	Remote Media Eject Signal	III	Z75
10	0.75	RD/VT	340	Battery Positive Voltage	II	-

A33 Media Disc Player X1 (U42)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13551678

Service Connector: 89047364

Description: 12-Way F 0.64 Series (BK)

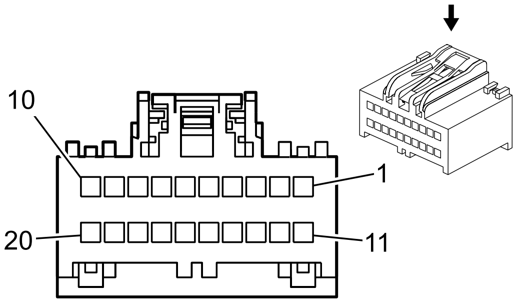
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579945	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

A33 Media Disc Player X1 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/VT	340	Battery Positive Voltage	I	-
2	0.35	GY	4016	Remote Media Eject Signal	II	Z75
3	0.5	WH/L-GN	3997	MOST Serial Data (-)	II	-
4	0.5	GY/VT	3998	MOST Serial Data (+)	II	-
5	0.5	WH/L-GN	3997	MOST Serial Data (-)	II	-
6	0.5	GY/VT	3998	MOST Serial Data (+)	II	-
7	0.5	BK	2550	Ground	II	-
8	0.35	L-GN/YE	7066	Entertainment Remote Enable Signal	II	-
9	-	-	-	Not Occupied	-	-
10	0.35	WH/VT	3999	MOST Control	II	-
11	0.5	L-GN	5060	Low Speed GMLAN Serial Data	II	-
12	-	-	-	Not Occupied	-	-

A33 Media Disc Player X2 (U42)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15491304

Service Connector: 15126710

Description: 20-Way F USCAR 64 Series (GY)

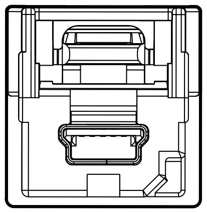
Terminal Part Information

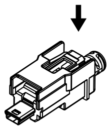
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-215A	SAIT-A03T-M064	14	P	P

A33 Media Disc Player X2 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN/WH	3355	Left Rear Seat Audio Headphone Signal	I	-
2	0.35	BN/GY	3357	Right Rear Seat Audio Headphone Signal	I	-
3	0.35	D-BU/VT	3356	Rear Seat Audio Headphone Common Signal	I	-
4	0.5	Bare	3354	Rear Seat Audio Headphone Drain Wire	I	-
5-10	-	-	-	Not Occupied	-	-
11	0.35	YE	2059	Left Auxiliary Audio Signal (1)	I	-
12	0.35	WH	2058	Right Auxiliary Audio Signal (1)	I	-
13	0.35	BN	3374	Auxiliary Audio Common Signal (2)	I	-
14	0.5	Bare	5345	Auxiliary Audio Drain Wire (1)	I	-
15	0.35	YE	2056	Auxiliary Video High Signal	I	-
16	0.5	Bare	2057	Auxiliary Video Low Signal	I	-
17-20	-	-	-	Not Occupied	-	-

A33 Media Disc Player X3 (U42)





Connector Part Information

Harness Type: Instrument Panel USB

OEM Connector: 13584746

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 mini B USB Type (BK)

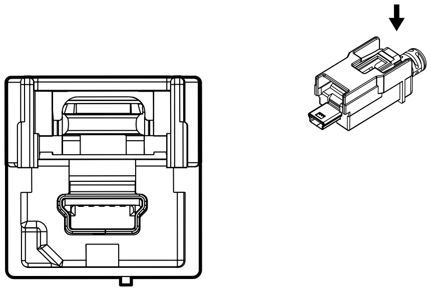
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A33 Media Disc Player X3 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A33 Media Disc Player X4 (U42)



Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13584927

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (WH)

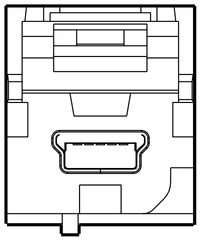
Terminal Part Information

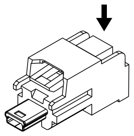
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A33 Media Disc Player X4 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Video Display Signal	I	—

A33 Media Disc Player X5 (U42 or DNU)





Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13584755

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (GY)

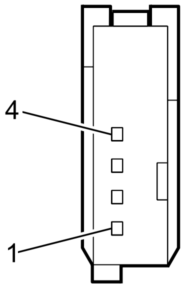
Terminal Part Information

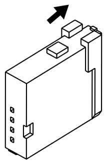
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

A33 Media Disc Player X5 (U42 or DNU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Video Display Signal	I	—

A34 HVAC Controls - Auxiliary (AZ3)





Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13820711

Service Connector: 19300398

Description: 4-Way F 0.64 Series (BK)

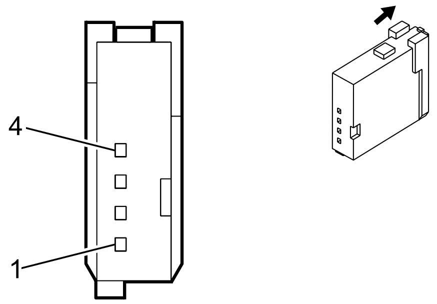
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-215A	SAIT-A03T-M064	14	P	P

A34 HVAC Controls - Auxiliary (AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN/YE	7531	Linear Interconnect Network Bus 9	I	-
4	0.5	BK	1050	Ground	I	-

A34 HVAC Controls - Auxiliary (D07)



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13820711

Service Connector: 19300398

Description: 4-Way F 0.64 Series (BK)

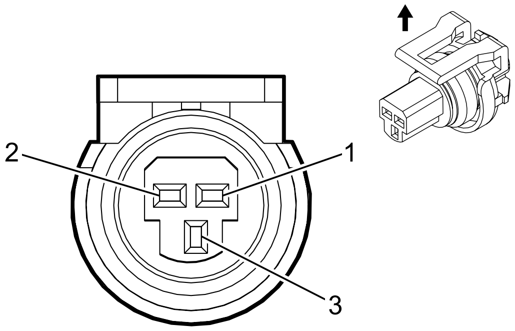
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

A34 HVAC Controls - Auxiliary (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN/YE	7531	Linear Interconnect Network Bus 9	I	-
4	0.35	BK/WH	1851	Signal Ground	I	-

B1 A/C Refrigerant Pressure Sensor



Connector Part Information

Harness Type: Engine

OEM Connector: 13846842

Service Connector: 19301715

Description: 3-Way F 150 GT Series, Sealed (BK)

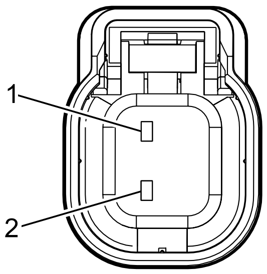
Terminal Part Information

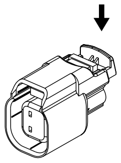
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B1 A/C Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	-
2	0.5	BN/RD	2700	A/C Pressure Sensor 5 Volt Reference	I	-
3	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	I	-

B5LF Wheel Speed Sensor - Left Front





Connector Part Information

Harness Type: Chassis

OEM Connector: 13828712

Service Connector: 19300543

Description: 2-Way F 1.5 Series, Sealed (BK)

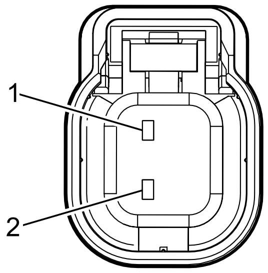
Terminal Part Information

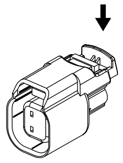
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	7064	Wheel Speed Sensor Supply Voltage Left Front	I	-
2	0.5	GY	830	Wheel Speed Sensor Signal Left Front	I	-

B5LR Wheel Speed Sensor - Left Rear





Connector Part Information

Harness Type: Chassis

OEM Connector: 13828712

Service Connector: 19300543

Description: 2-Way F 1.5 Series, Sealed (BK)

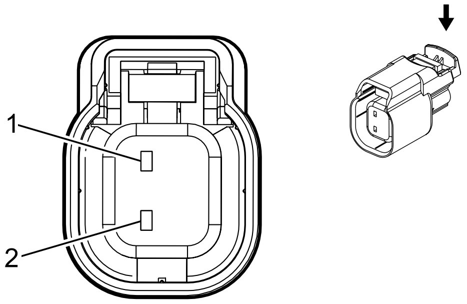
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B5LR Wheel Speed Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Wheel Speed Sensor Supply Voltage Left Rear	I	-
2	0.5	D-BU	884	Wheel Speed Sensor Signal Left Rear	I	-

B5RF Wheel Speed Sensor - Right Front



Connector Part Information

Harness Type: Chassis

OEM Connector: 13828712

Service Connector: 19300543

Description: 2-Way F 1.5 Series, Sealed (BK)

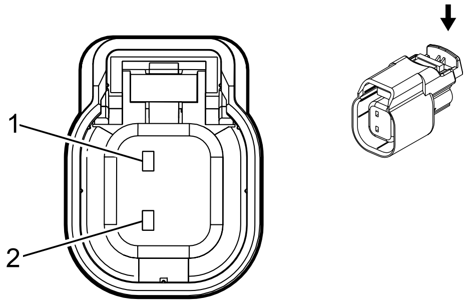
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B5RF Wheel Speed Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Wheel Speed Sensor Supply Voltage Right Front	I	-
2	0.5	YE	872	Wheel Speed Sensor Signal Right Front	I	-

B5RR Wheel Speed Sensor - Right Rear



Connector Part Information

Harness Type: Chassis

OEM Connector: 13828712

Service Connector: 19300543

Description: 2-Way F 1.5 Series, Sealed (BK)

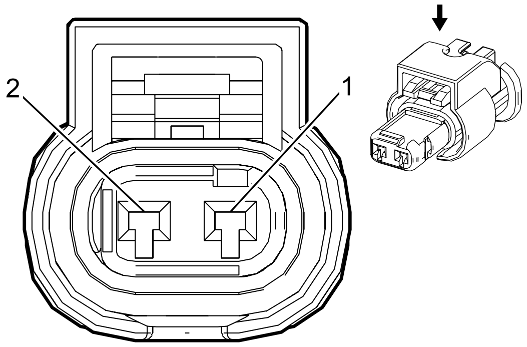
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B5RR Wheel Speed Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Wheel Speed Sensor Supply Voltage Right Rear	I	-
2	0.5	VT	882	Wheel Speed Sensor Signal Right Rear	I	-

B9 Ambient Air Temperature Sensor (X88 or Z88)



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13927761

Service Connector: 19329415

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK with BK Inner Connector)

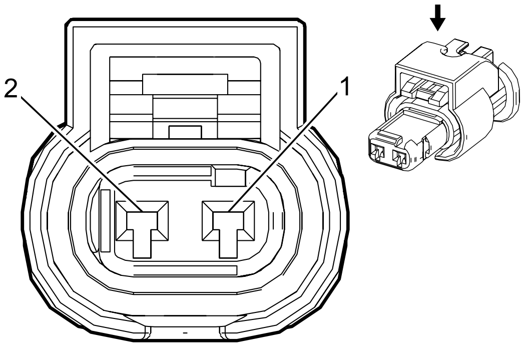
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B9 Ambient Air Temperature Sensor (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	-
2	0.5	BK/D-BU	61	Outside Ambient Temperature Sensor Low Reference	I	-

B9 Ambient Air Temperature Sensor (Z75)



Connector Part Information

Harness Type: Aero Shutter Jumper

OEM Connector: 13927761

Service Connector: 19329415

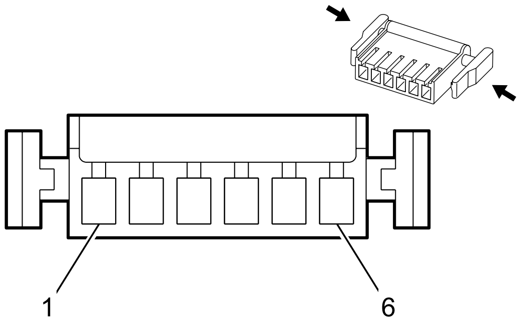
Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK with BK Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B9 Ambient Air Temperature Sensor (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	-
2	0.5	BK/D-BU	61	Outside Ambient Temperature Sensor Low Reference	I	-



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13726957

Service Connector: 13576539

Description: 6-Way F 0.64 Micro Quadlock Series (BK)

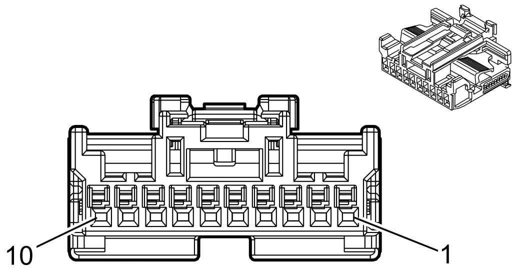
Terminal Part Information

Terminal Type ID	**Terminated Lead**	**Diagnostic Test Probe**	**Terminal Removal Tool**	**Service Terminal**	**Tray**	**Core Crimp**	**Insulation Crimp**
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B10B Ambient Light/Sunload Sensor

Pin	**Size**	**Color**	**Circuit**	**Function**	**Terminal Type ID**	**Option**
1	0.35	GY	728	Security Indicator Control	I	-
2	0.35	GY	590	Solar Sensor Driver Signal	I	-
3	0.35	D-BU/WH	734	Inside Air Temperature Sensor Signal	I	-
4	0.35	YE/VT	1783	Twilight Sentinel Delay Signal	I	-
5	0.35	WH/D-BU	278	Ambient Light Sensor Signal	I	-
6	0.35	BK/YE	1791	Air Temperature Door Control Low Reference	I	-

B15 Transmission Internal Mode Switch (M5U)



Connector Part Information

Harness Type: Transmission Control

OEM Connector: 2138504–1

Service Connector: Service by Harness — See Part Catalog

Description: 10–Way F 0.64 Generation Y Series (BN)

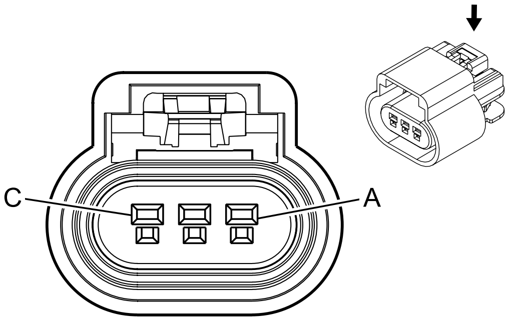
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

B15 Transmission Internal Mode Switch (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/GY	1786	Transmission Park/Neutral Signal (1)	I	-
2	0.5	BK/GY	3927	IMS Mode Switch Low Reference	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	YE/BU	4171	Transmission Position Sensor A 9 Volt Reference	I	-
5	0.5	VT/WH	5981	PRNDL A Signal	I	-
6	0.5	WH/BK	5983	PRNDL C Signal	I	-
7	0.5	GY/YE	4169	PRNDL S Signal	I	-
8	0.5	GY/BN	5982	PRNDL B Signal	I	-
9	0.5	GY/WH	4168	PRNDL P Signal	I	-
10	0.5	YE/GN	4170	Transmission Position Sensor B 9 Volt Reference	I	-

B18 Battery Current Sensor



Connector Part Information

Harness Type: Engine

OEM Connector: 13519047

Service Connector: 15306388

Description: 3-Way F 150 GT Series, Sealed (BK)

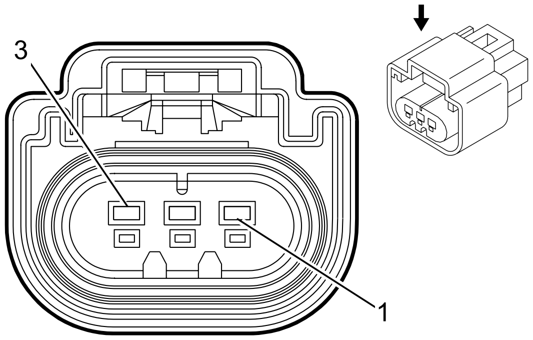
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B18 Battery Current Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU/VT	5076	Current Sensor Supply Voltage	I	-
B	0.5	BK/PU	5077	Current Sensor Low Reference	I	-
C	0.5	WH/YE	5075	Current Sensor Signal	I	-

B19B Brake Booster Vacuum Sensor



Connector Part Information

Harness Type: Chassis

OEM Connector: 13511996

Service Connector: 13580873

Description: 3-Way F 150 GT Series, Sealed (GY)

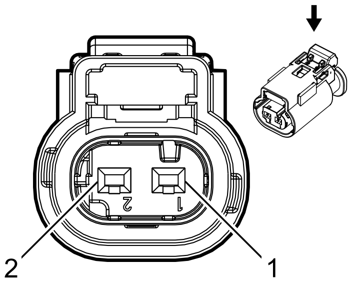
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B19B Brake Booster Vacuum Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	6030	Brake Vacuum Sensor Signal	I	-
2	0.5	BK/YE	6032	Brake Vacuum Sensor Low Reference	I	-
3	0.5	YE/RD	6031	Brake Vacuum Sensor 5 Volt Reference	I	-

B20 Brake Fluid Level Switch



Connector Part Information

Harness Type: Chassis

OEM Connector: 13735326

Service Connector: 13587326

Description: 2-Way F 1.2 MLK Series, Sealed (BK)

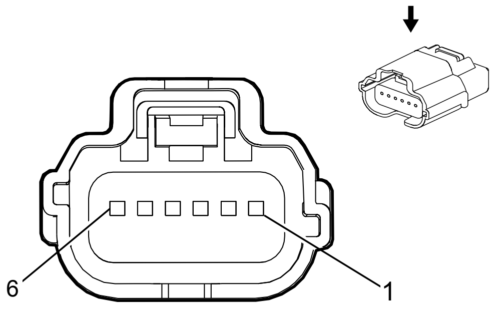
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	2150	Ground	I	-
2	0.5	L-GN/GY	333	Brake Fluid Level Sensor Signal	I	-

B22 Brake Pedal Position Sensor



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 13893502

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 64 Series, Sealed (NA)

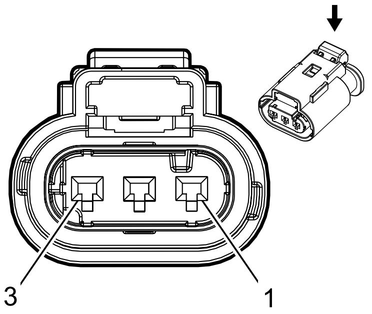
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/L-GN	552	Sensor Low Reference	I	-
2	0.5	GY/RD	598	5 Volt Reference	I	-
3	0.5	WH/L-GN	526	Stop Lamp Switch Signal	I	-
4	0.5	D-BU/YE	5361	Brake Apply Sensor Signal	I	-
5	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	I	-
6	0.5	WH	5359	Brake Apply Sensor Supply Voltage	I	-

B23 Camshaft Position Sensor



Connector Part Information

Harness Type: Camshaft Jumper

OEM Connector: 13503570

Service Connector: 19299690

Description: 3-Way F 1.2 MLK Series, Sealed (BK)

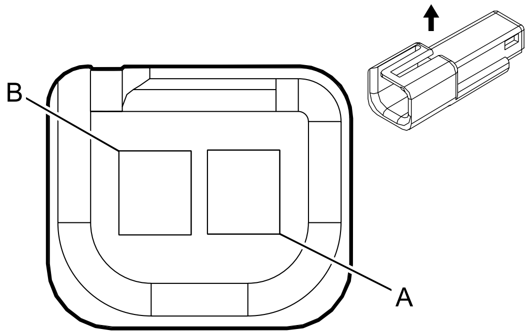
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	J-38125–21	Not Available	Not Available	Not Available	Not Available

B23 Camshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/L-BU	5300	5-Volt Reference 1	I	-
2	0.5	BK/L-GN	5301	Low Reference	I	-
3	0.5	YE/VT	5275	Camshaft Position Signal	I	-

B24 Cellular Phone Microphone



Connector Part Information

Harness Type: Headliner

OEM Connector: 12047663

Service Connector: 13584278

Description: 2-Way M 150 Metri Pack Series (BK)

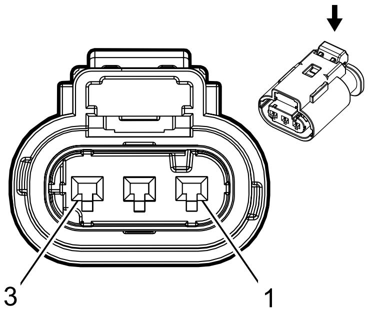
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B24 Cellular Phone Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK/BN	654	Cellular Telephone Microphone Low Reference	I	-
B	0.35	D-BU	655	Cellular Telephone Microphone Signal	I	-

B26 Crankshaft Position Sensor



Connector Part Information

Harness Type: Engine

OEM Connector: 13763990

Service Connector: 19299690

Description: 3-Way F 1.2 MLK Series, Sealed (BK)

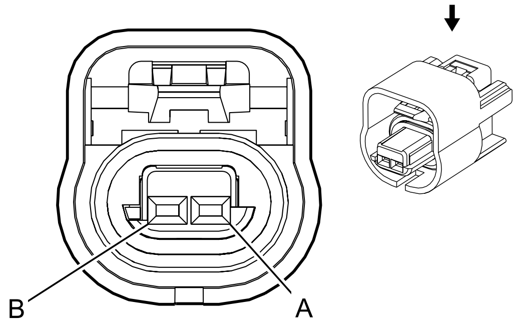
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B26 Crankshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	6271	Crankshaft 60X Sensor Signal	I	-
2	0.5	BK/PU	6272	Crankshaft 60X Sensor Low Reference	I	-
3	0.5	VT/D-BU	6270	Crankshaft 60X Sensor Voltage	I	-

B34 Engine Coolant Temperature Sensor



Connector Part Information

Harness Type: Engine

OEM Connector: 15355317

Service Connector: 19178093

Description: 2-Way F 150 GT Series, Sealed (BK)

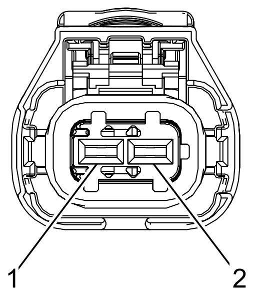
Terminal Part Information

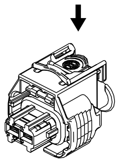
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B34 Engine Coolant Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	-
B	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	-

B35 Engine Oil Level Switch





Connector Part Information

Harness Type: Engine

OEM Connector: 13930085

Service Connector: 13384371

Description: 2-Way F 2.8 Series, Sealed (BK)

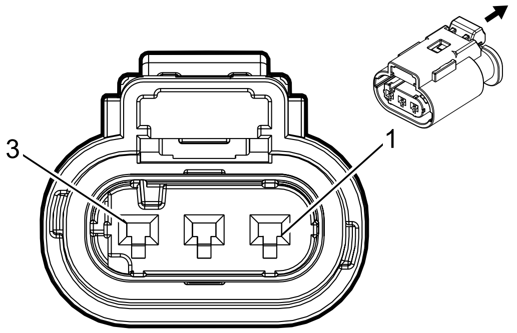
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

B35 Engine Oil Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/WH	451	Signal Ground	I	-
2	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	-

B37B Engine Oil Pressure Sensor



Connector Part Information

Harness Type: Engine

OEM Connector: 13889776

Service Connector: 19301717

Description: 3-Way F 1.2 MLK Series, Sealed (BK)

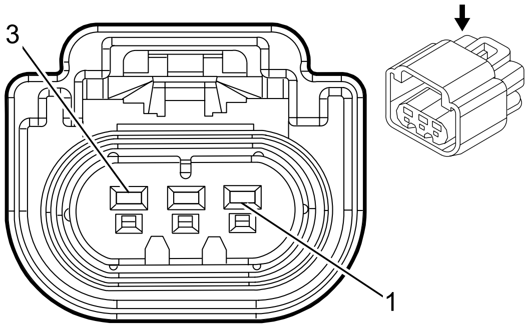
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B37B Engine Oil Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	-
2	0.5	BK/PU	2755	Oil Pressure Sensor Low Reference	I	-
3	0.5	WH/RD	2705	Oil Pressure Sensor 5 Volt Reference	I	-

B47 Fuel Pressure Sensor



Connector Part Information

Harness Type: Chassis

OEM Connector: 13511131

Service Connector: 19168035

Description: 3-Way F 150 GT Series, Sealed (BK)

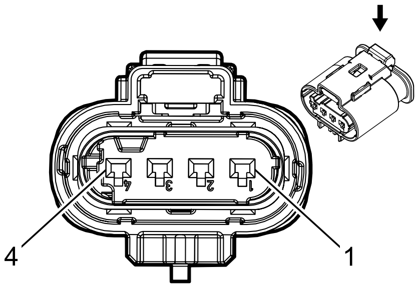
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578912	J-35616-2A (GY)	J-38125-553	12191819	8	E	1

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	7446	Fuel Line Pressure Sensor Signal	I	-
2	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	-
3	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	-

B47B Fuel Rail Pressure Sensor



Connector Part Information

Harness Type: Fuel Injector - Odd

OEM Connector: 13503575

Service Connector: 13587299

Description: 4-Way F 1.2 MLK Series, Sealed (BK)

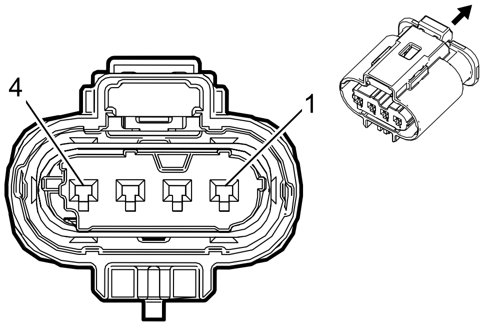
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	J-38125-21	Not Available	Not Available	Not Available	Not Available

B47B Fuel Rail Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	2917	Fuel Rail Pressure Sensor (5) Volt Reference	I	-
2	0.5	BN/YE	2161	Fuel Rail Pressure Sensor #2 Signal	I	-
3	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	-
4	0.5	L-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	-

B52C Heated Oxygen Sensor - Bank 1 Sensor 1



Connector Part Information

Harness Type: Engine

OEM Connector: 13869004

Service Connector: 19301716

Description: 4-Way F 1.2 MLK Series, Sealed (D-GY)

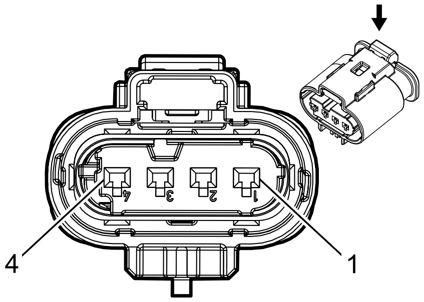
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B52C Heated Oxygen Sensor - Bank 1 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor (1)	I	-
2	0.5	VT/D-BU	5293	Powertrain Main Relay Fused Supply (4)	I	-
3	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor (1)	I	-
4	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor (1)	I	-

B52D Heated Oxygen Sensor - Bank 1 Sensor 2



Connector Part Information

Harness Type: Chassis

OEM Connector: 13815348

Service Connector: 13587298

Description: 4-Way F 1.2 MLK Series, Sealed (L-GY)

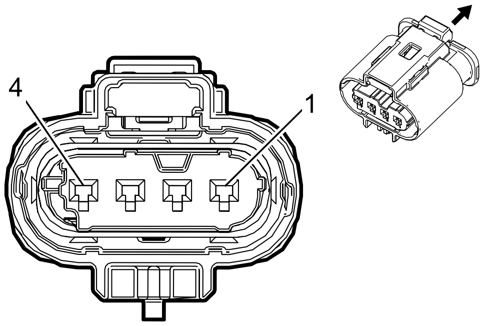
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor (2)	I	-
2	0.5	VT/D-BU	5294	Powertrain Main Relay Fused Supply (5)	I	-
3	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor (2)	I	-
4	0.5	VT/D-BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor (2)	I	-

B52E Heated Oxygen Sensor - Bank 2 Sensor 1



Connector Part Information

Harness Type: Engine

OEM Connector: 13869004

Service Connector: 19301716

Description: 4-Way F 1.2 MLK Series, Sealed (D-GY)

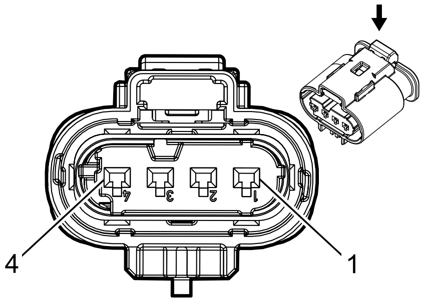
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B52E Heated Oxygen Sensor - Bank 2 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor (1)	I	-
2	0.5	VT/D-BU	5293	Powertrain Main Relay Fused Supply (4)	I	-
3	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor (1)	I	-
4	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor (1)	I	-

B52F Heated Oxygen Sensor - Bank 2 Sensor 2



Connector Part Information

Harness Type: Engine

OEM Connector: 13815348

Service Connector: 13587298

Description: 4-Way F 1.2 MLK Series, Sealed (L-GY)

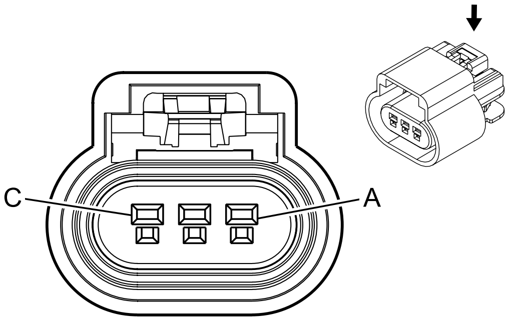
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor (2)	I	-
2	0.5	VT/D-BU	5294	Powertrain Main Relay Fused Supply (5)	I	-
3	0.5	YE/D-BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor (2)	I	-
4	0.5	VT/L-GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor (2)	I	-

B55 Hood Ajar Switch



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13519047

Service Connector: 15306388

Description: 3-Way F 150 GT Series, Sealed (BK)

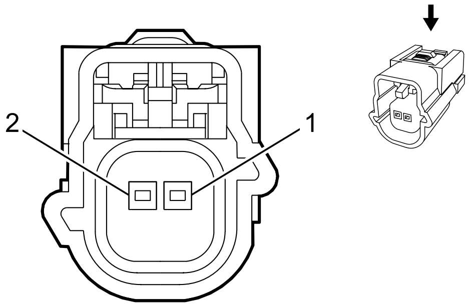
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B55 Hood Ajar Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	-	-	-	Not Occupied	-	-
B	0.5	BN/L-GN	109	Hood Ajar Switch Signal	I	-
C	1	BK	250	Ground	I	-

B59L Front Impact Sensor - Left



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13593078

Service Connector: 13577629

Description: 2-Way F 0.64 Series, Sealed (L-GY)

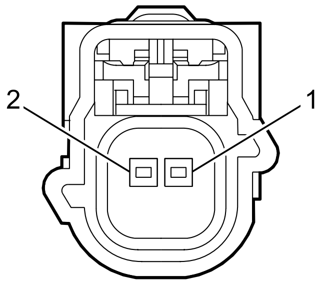
Terminal Part Information

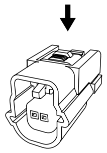
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B59L Front Impact Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	354	Left Front Discriminating Sensor Signal	I	-
2	0.5	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	-

B59R Front Impact Sensor - Right





Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13593078

Service Connector: 13577629

Description: 2-Way F 0.64 Series, Sealed (L-GY)

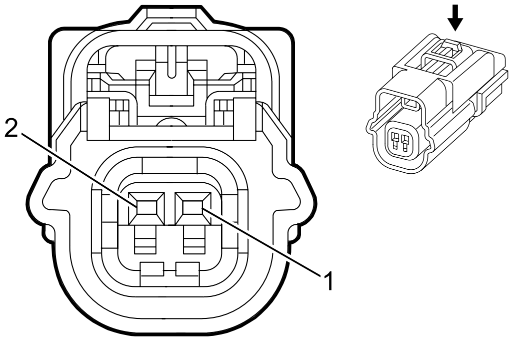
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B59R Front Impact Sensor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/L-GN	1409	Right Front Discriminating Sensor Signal	I	-
2	0.5	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	-

B62D Seat Position Sensor - Driver



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 89047381

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Kaizen 64 Series, Sealed (BK)

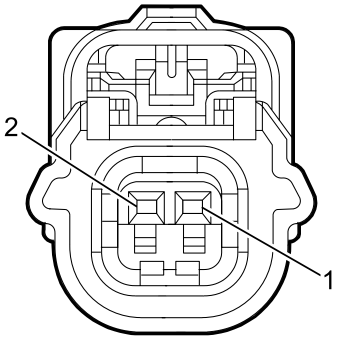
Terminal Part Information

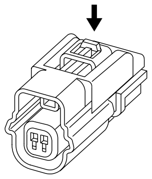
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B62D Seat Position Sensor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	-
2	0.35	OG/L-GN	5055	Driver Seat Position Switch Signal	I	-

B62P Seat Position Sensor - Passenger





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 89047381

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Kaizen 64 Series, Sealed (BK)

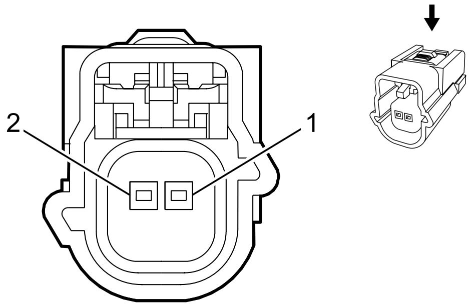
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B62P Seat Position Sensor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	-
2	0.35	OG/L-BU	5056	Passenger Seat Position Switch Signal	I	-

B63LF Side Impact Sensor - Left Front



Connector Part Information

Harness Type: Driver Door

OEM Connector: 13593078

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Series, Sealed (L-GY)

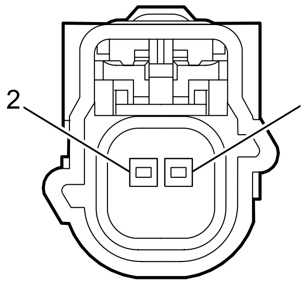
Terminal Part Information

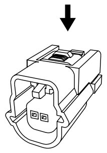
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B63LF Side Impact Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/L-GN	2132	Left Front Side Impact Sensing Module Signal	I	-
2	0.5	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	-

B63LR Side Impact Sensor - Left Rear





Connector Part Information

Harness Type: Body

OEM Connector: 13610095

Service Connector: 13585852

Description: 2-Way F 0.64 Series, Sealed (D-GY)

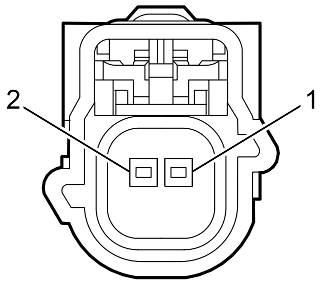
Terminal Part Information

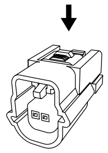
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B63LR Side Impact Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/D-BU	6620	Left Middle Side Impact Sensing Module Signal	I	-
2	0.35	BK/OG	6621	Left Middle Side Impact Sensing Module Low Reference	I	-

B63RF Side Impact Sensor - Right Front





Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13593078

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Series, Sealed (L-GY)

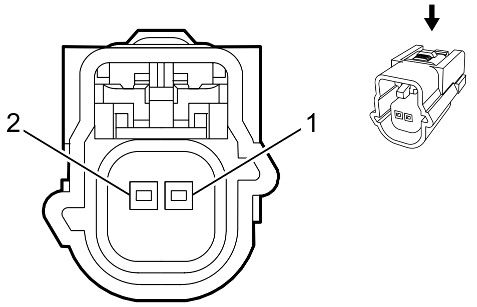
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B63RF Side Impact Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/OG	2134	Right Front Side Impact Sensing Module Signal	I	-
2	0.5	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	-

B63RR Side Impact Sensor - Right Rear



Connector Part Information

Harness Type: Body

OEM Connector: 13610095

Service Connector: 13585852

Description: 2-Way F 0.64 Series, Sealed (D-GY)

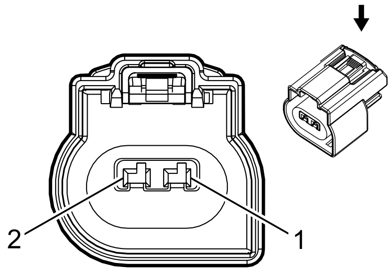
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B63RR Side Impact Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/VT	6624	Right Middle Side Impact Sensing Module Signal	I	-
2	0.35	BK/OG	6625	Right Middle Side Impact Sensing Module Low Reference	I	-

B68A Knock Sensor 1



Connector Part Information

Harness Type: Engine

OEM Connector: 13814755

Service Connector: 19301207

Description: 2-Way F 150 MX Series, Sealed (BK)

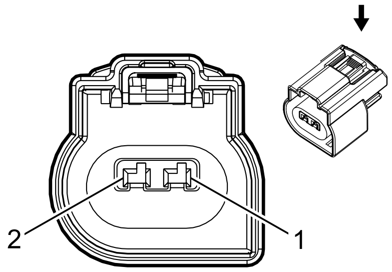
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B68A Knock Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GY	496	Knock Sensor Signal (1)	I	-
2	0.75	BK/YE	1716	Knock Sensor Low Reference (1)	I	-

B68B Knock Sensor 2



Connector Part Information

Harness Type: Engine

OEM Connector: 13814755

Service Connector: 19301207

Description: 2-Way F 150 MX Series, Sealed (BK)

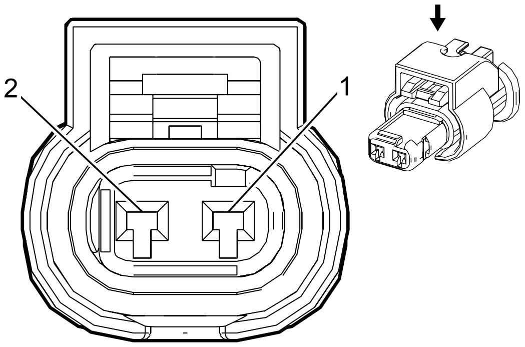
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B68B Knock Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/GY	1876	Knock Sensor Signal (2)	I	-
2	0.75	BK/GY	2303	Knock Sensor Low Reference (2)	I	-

B70 Liftgate Close Switch (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13761652

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK with BK Inner Connector)

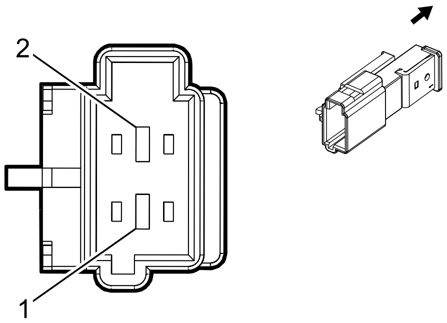
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B70 Liftgate Close Switch (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN	3033	Lift Gate Shut Face Switch Signal	I	-
2	0.35	BK/VT	5801	Lift Gate Object Sensor Low Reference	I	-

B71L Liftgate Object Sensor - Left (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13662506

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 1.6 Timer Series (BK)

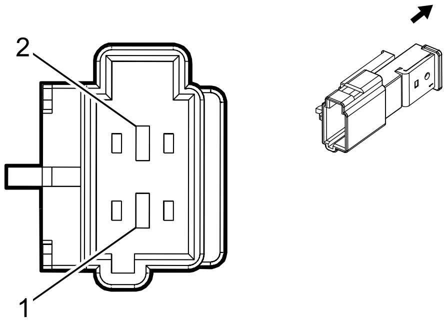
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B71L Liftgate Object Sensor - Left (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/BK	6126	Lift Gate Object Sensor 2 Signal	I	-
2	0.35	GY/BK	5802	Lift Gate Object Sensor Signal	I	-

B71R Liftgate Object Sensor - Right (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13662506

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 1.6 Timer Series (BK)

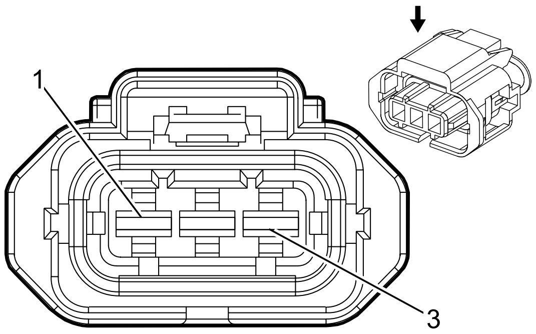
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B71R Liftgate Object Sensor - Right (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/BK	5802	Lift Gate Object Sensor Signal	I	-
2	0.35	BK/VT	5801	Lift Gate Object Sensor Low Reference	I	-

B74 Manifold Absolute Pressure Sensor



Connector Part Information

Harness Type: Engine

OEM Connector: 13639747

Service Connector: 19181248

Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

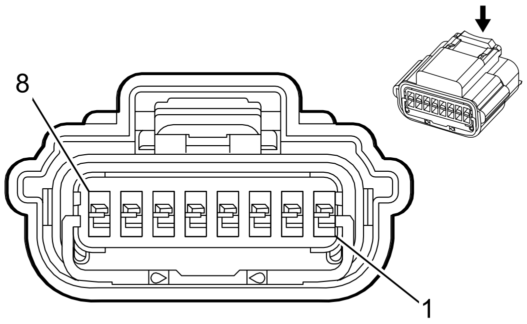
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

B74 Manifold Absolute Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5 Volt Reference	I	-
2	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	-
3	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	-

B75C Multifunction Intake Air Sensor



Connector Part Information

Harness Type: Engine

OEM Connector: 13774439

Service Connector: 13583440

Description: 8-Way F 0.64 Series, Sealed (BK)

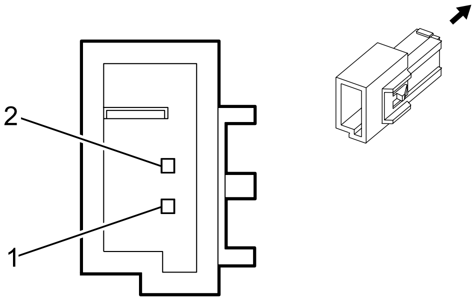
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B75C Multifunction Intake Air Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/D-BU	6289	Induction Air Temperature Sensor Signal	I	-
2	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	-
3	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor 5V Return	I	-
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	-
5	0.5	VT/D-BU	5294	Powertrain Main Relay Fused Supply (5)	I	-
6	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	I	-
7	0.75	BK/WH	451	Signal Ground	I	-
8	0.5	GY/D-BU	7564	Humidity Sensor Signal	I	-

B77LF Radio Volume Compensator Interior Noise Microphone - Left Front (NKC)



Connector Part Information

Harness Type: Headliner

OEM Connector: 13676029

Service Connector: 19260825

Description: 2-Way M 0.64 Series (BK)

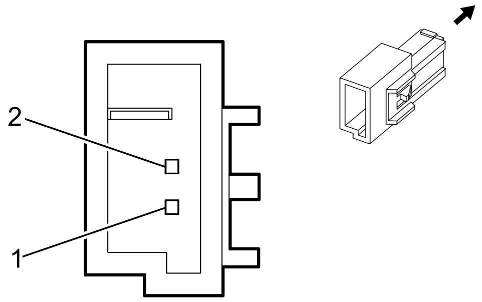
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-65B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B77LF Radio Volume Compensator Interior Noise Microphone - Left Front (NKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN/BK	3008	Noise Reduction Microphone #1 Return	I	-
2	0.35	L-GN/BN	3005	Noise Reduction Microphone #1 Signal	I	-

B77R Radio Volume Compensator Interior Noise Microphone - Rear (NKC)



Connector Part Information

Harness Type: Headliner

OEM Connector: 13676029

Service Connector: 19260825

Description: 2-Way M 0.64 Series (BK)

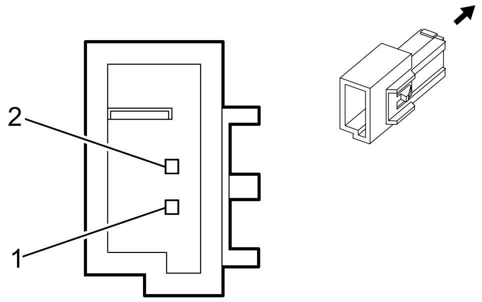
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-65B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B77R Radio Volume Compensator Interior Noise Microphone - Rear (NKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/BN	3010	Noise Reduction Microphone #3 Return	I	-
2	0.35	GY/D-BU	3007	Noise Reduction Microphone #3 Signal	I	-

B77RF Radio Volume Compensator Interior Noise Microphone - Right Front (NKC)



Connector Part Information

Harness Type: Headliner

OEM Connector: 13676029

Service Connector: 19260825

Description: 2-Way M 0.64 Series (BK)

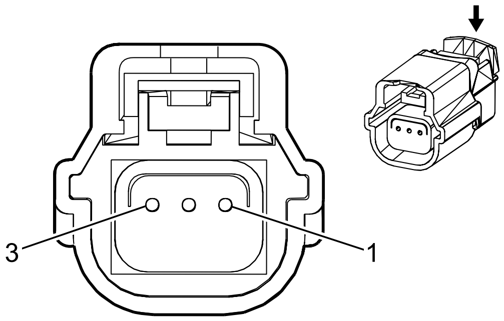
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-65B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B77RF Radio Volume Compensator Interior Noise Microphone - Right Front (NKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU/BK	3009	Noise Reduction Microphone #2 Return	I	-
2	0.35	D-BU/YE	3006	Noise Reduction Microphone #2 Signal	I	-

B78A Front Object Sensor - Left Outer (UD5)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

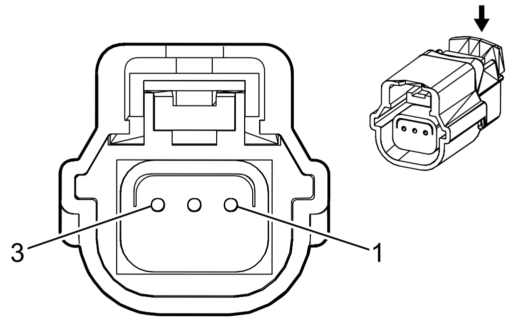
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78A Front Object Sensor - Left Outer (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/L-GN	5213	Front Parking Left/Right/Mid Sensor	I	-
2	0.5	VT/WH	5215	Front Parking Left Corner Sensor	I	-
3	0.5	BK/D-BU	5214	Front Parking Sensor Low Reference	I	-

B78B Front Object Sensor - Right Outer (UD5)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

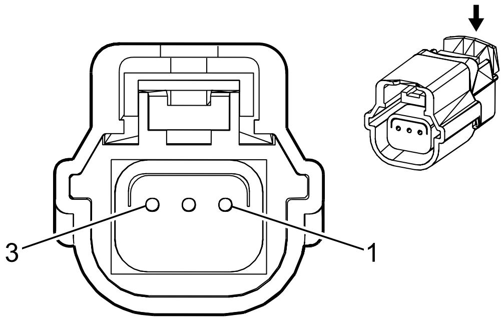
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78B Front Object Sensor - Right Outer (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/L-GN	5213	Front Parking Left/Right/Mid Sensor	I	-
2	0.5	WH/GY	5217	Front Parking Right Corner Sensor	I	-
3	0.5	BK/D-BU	5214	Front Parking Sensor Low Reference	I	-

B78C Front Object Sensor - Left Middle (UD5)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

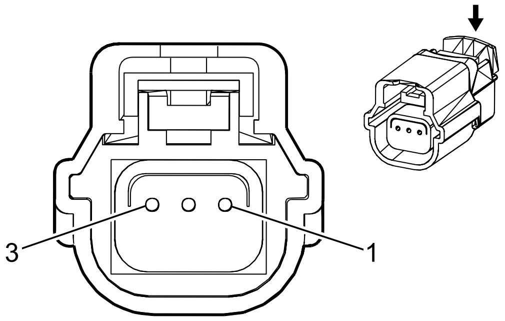
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78C Front Object Sensor - Left Middle (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/L-GN	5213	Front Parking Left/Right/Mid Sensor	I	-
2	0.5	YE/GY	5216	Front Parking Left Mid Sensor	I	-
3	0.5	BK/D-BU	5214	Front Parking Sensor Low Reference	I	-

B78D Front Object Sensor - Right Middle (UD5)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

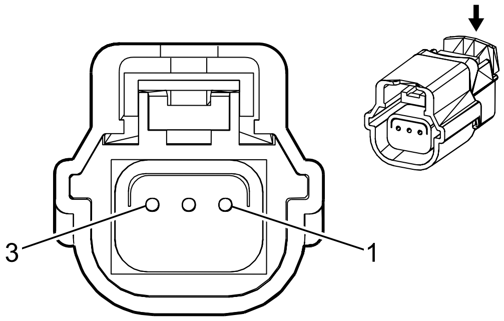
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78D Front Object Sensor - Right Middle (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/L-GN	5213	Front Parking Left/Right/Mid Sensor	I	-
2	0.5	VT/GY	5218	Front Parking Right Mid Sensor	I	-
3	0.5	BK/D-BU	5214	Front Parking Sensor Low Reference	I	-

B78E Rear Object Sensor - Left Middle (UD5 or UD7)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

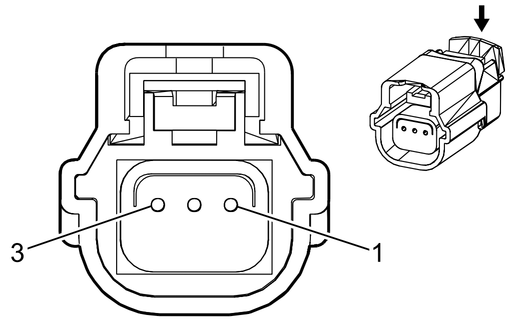
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78E Rear Object Sensor - Left Middle (UD5 or UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Supply Voltage	I	-
2	0.5	YE/D-BU	2376	Left Rear Middle Object Sensor Signal	I	-
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	-

B78F Rear Object Sensor - Right Middle (UD5 or UD7)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

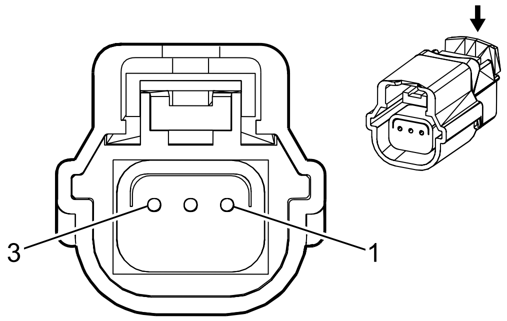
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78F Rear Object Sensor - Right Middle (UD5 or UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Supply Voltage	I	-
2	0.5	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	-
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	-

B78G Rear Object Sensor - Left Outer (UD5 or UD7)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

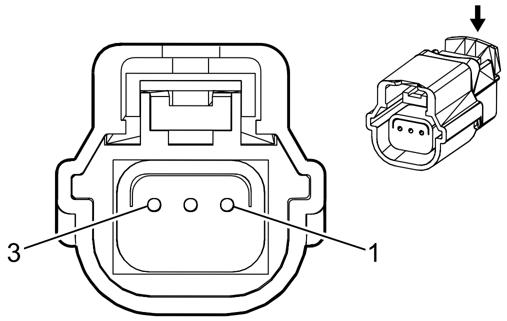
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78G Rear Object Sensor - Left Outer (UD5 or UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Supply Voltage	I	-
2	0.5	YE	2375	Left Rear Corner Object Sensor Signal	I	-
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	-

B78H Rear Object Sensor - Right Outer (UD5 or UD7)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13512481

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series, Sealed (BK)

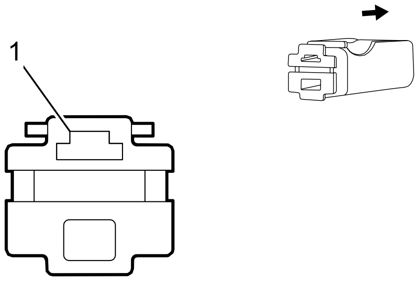
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B78H Rear Object Sensor - Right Outer (UD5 or UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Supply Voltage	I	-
2	0.5	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	-
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	-

B80 Park Brake Switch (without J71)



Connector Part Information

Harness Type: Body

OEM Connector: 13511619

Service Connector: 88988465

Description: 1-Way F 250 Series (BK)

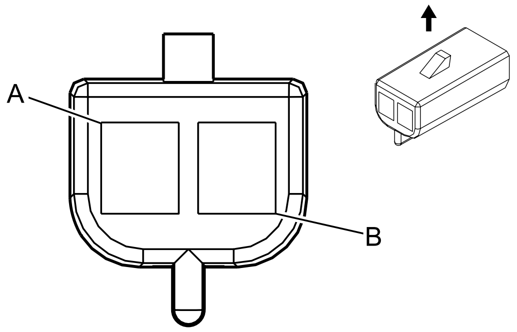
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

B80 Park Brake Switch (without J71)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU/VT	1134	Park Brake Switch Signal	I	-

B81B Park Position Switch



Connector Part Information

Harness Type: Steering Column

OEM Connector: 12059253

Service Connector: 12125690

Description: 2-Way F 150 Metri Pack Series (L-GN)

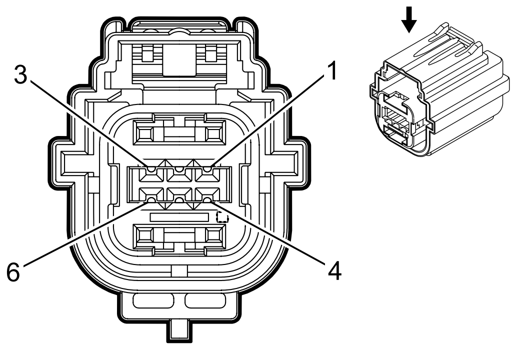
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

B81B Park Position Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	WH/VT	1932	Shift Select Switch Park Signal	I	-
B	0.35	BK	1851	Ground	I	-

B87 Rearview Camera (UVC)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13629704

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 0.64 Series, Sealed (GY)

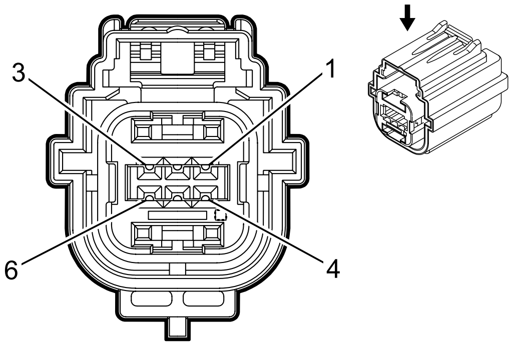
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B87 Rearview Camera (UVC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/YE	6972	Camera Signal #2 +	I	-
2	0.35	Bare	6974	Camera Drain Wire	I	-
3	0.35	L-GN/WH	24	Backup Lamp Supply Voltage	I	-
4	0.35	WH/D-BU	6973	Camera Signal #2 –	I	-
5	0.35	BK	2550	Ground	I	-
6	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	-

B87 Rearview Camera (UVH)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13629704

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 0.64 Series, Sealed (GY)

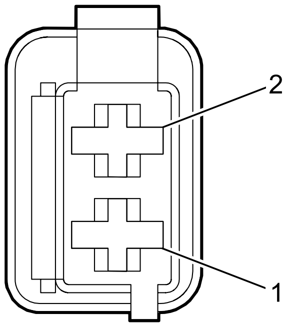
Terminal Part Information

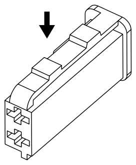
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B87 Rearview Camera (UVH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/YE	6972	Camera Signal #2 +	I	-
2	0.35	Bare	6974	Camera Drain Wire	I	-
3	0.35	L-GN/WH	24	Backup Lamp Supply Voltage	I	-
4	0.35	WH/D-BU	6973	Camera Signal #2	I	-
5	0.35	BK	2550	Ground	I	-
6	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	-

B88D Seat Belt Switch - Driver





Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 19179871

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

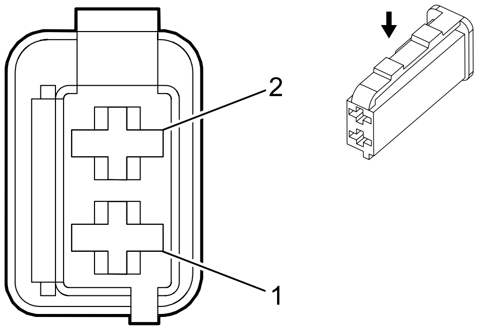
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B88D Seat Belt Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	-
2	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	-

B88P Seat Belt Switch - Passenger



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 19179871

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

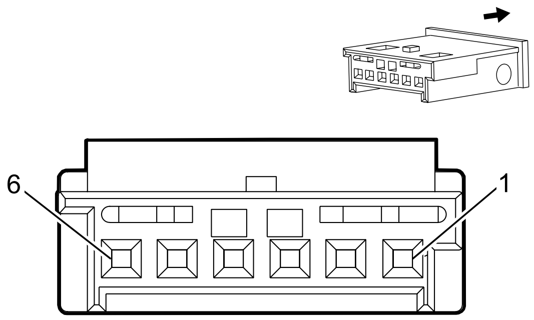
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

B88P Seat Belt Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	-
2	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	-

B99 Steering Wheel Angle Sensor



Connector Part Information

Harness Type: Steering Column

OEM Connector: 1-1241370-3

Service Connector: 13505903

Description: 6-Way F 0.64 Micro Quadlock Series (BK)

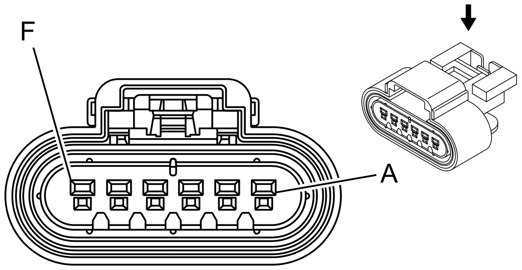
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B99 Steering Wheel Angle Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
2	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
3	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
4	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
5	0.35	GN/BN	2087	Combined Vehicle Inertial Sensor Supply Voltage	I	-
6	0.35	BK/WH	1851	Signal Ground	I	-

B107 Accelerator Pedal Position Sensor



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 15326830

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 150 GT Series, Sealed (BK)

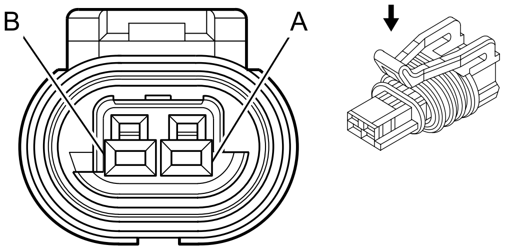
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference (2)	I	-
B	0.35	L-GN/WH	1162	Accelerator Pedal Position Signal (2)	I	-
C	0.35	BN/RD	1274	Accelerator Pedal Position 5 Volt Reference (2)	I	-
D	0.35	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference (1)	I	-
E	0.35	YE/WH	1161	Accelerator Pedal Position Signal (1)	I	-
F	0.35	BK/D-BU	1271	Accelerator Pedal Position Low Reference (1)	I	-

B115 Vehicle Speed Sensor (NP0 or NQH)



Connector Part Information

Harness Type: Engine

OEM Connector: 15449028

Service Connector: 88987993

Description: 2-Way F 150 GT Series, Sealed (BK)

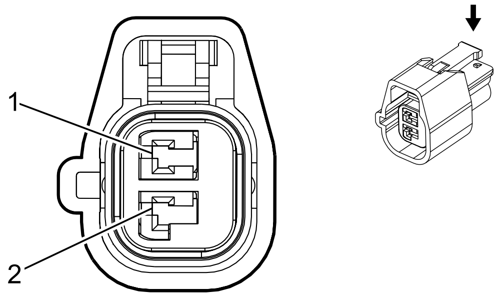
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B115 Vehicle Speed Sensor (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	-
B	0.5	BK/L-GN	822	Vehicle Speed Sensor Low Reference	I	-

B118B Windshield Washer Fluid Level Switch



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13577970

Service Connector: 13579501

Description: 2-Way F 1.5 Series (L-GY)

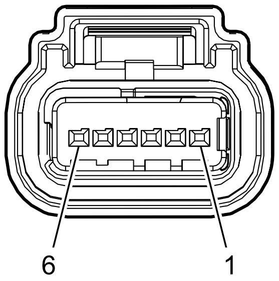
Terminal Part Information

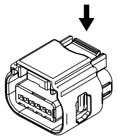
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B118B Windshield Washer Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	185	Low Washer Fluid Indicator Control	I	-
2	0.75	BK	150	Ground	I	-

B119 Multi-axis Acceleration Sensor (UGN)





Connector Part Information

Harness Type: Body

OEM Connector: 13834428

Service Connector: 19299684

Description: 6-Way F 0.64 Series, Sealed (BK)

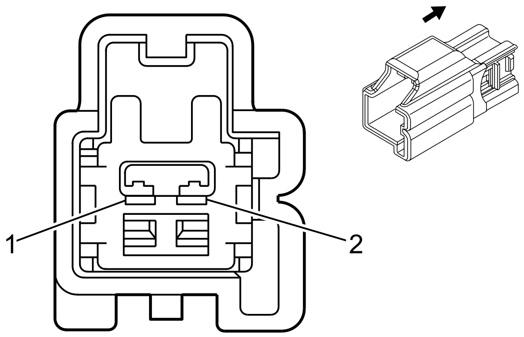
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B119 Multi-axis Acceleration Sensor (UGN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
2	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
3	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
4	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
5	0.35	BK/BN	6045	Steering Angle Sensor Low Reference	I	-
6	0.5	BK/WH	2751	Signal Ground	I	-

B124LR Folding Seat Back Position Switch - Left Rear (ATN or ATT)



Connector Part Information

Harness Type: 2nd Row Seat Left

OEM Connector: 13580902

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 2.8 Series, Sealed (BK)

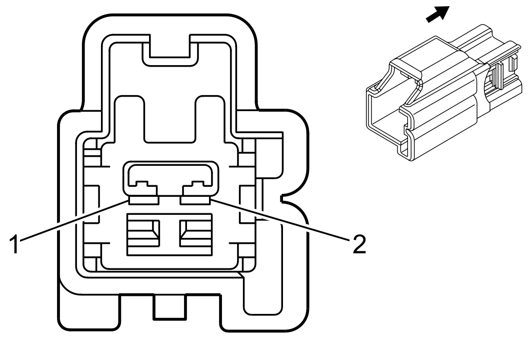
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B124LR Folding Seat Back Position Switch - Left Rear (ATN or ATT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1150	Ground	I	-
2	0.75	GY	1150	Ground	I	-

B124RR Folding Seat Back Position Switch - Right Rear (ATN or ATT)



Connector Part Information

Harness Type: 2nd Row Seat Right

OEM Connector: 13580902

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 2.8 Series, Sealed (BK)

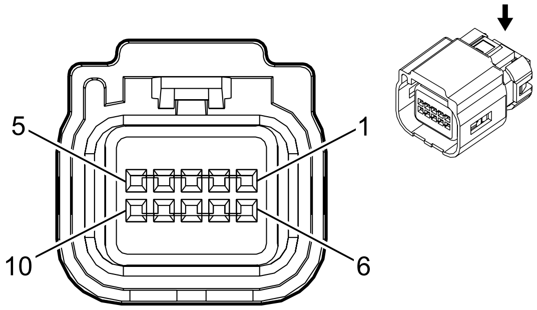
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B124RR Folding Seat Back Position Switch - Right Rear (ATN or ATT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1150	Ground	I	-
2	0.75	GY	1150	Ground	I	-

B137B Power Steering Shaft Torque/Position Sensor



Connector Part Information

Harness Type: Power Steering Jumper

OEM Connector: 28249221

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 Kaizen Series, Sealed (BN)

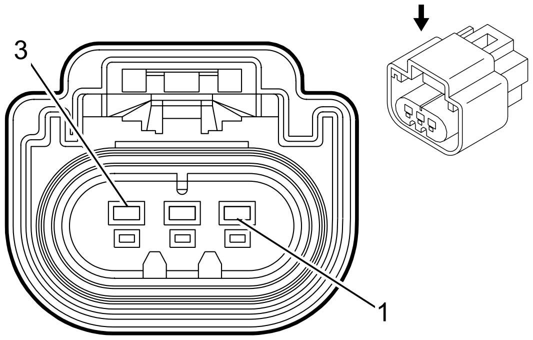
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	Pending	Pending	Not Available	Not Available	Not Available	Not Available

B137B Power Steering Shaft Torque/Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GN	–	TRQ2 PWM Q2	I	-
2	0.5	TN	–	SDA	I	-
3	0.5	RD	–	5-Volt Reference	I	-
4	0.5	BK	–	Low Reference	I	-
5	0.5	WH	–	TRQ1 PWM Q1	I	-
6	0.5	VT	–	SCL	I	-
7	0.5	GN/BU	–	TOR IN 2	I	-
8	–	–	–	Not Occupied	–	-
9	0.5	GN	–	TOR IN 1	I	-
10	–	–	–	Not Occupied	–	-

B150 Fuel Tank Pressure Sensor



Connector Part Information

Harness Type: Chassis

OEM Connector: 13511996

Service Connector: 13580873

Description: 3-Way F 150 GT Series, Sealed (GY)

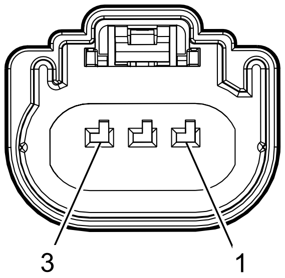
Terminal Part Information

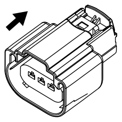
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	890	Fuel Tank Pressure Sensor Signal	I	-
2	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	I	-
3	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5 Volt Reference	I	-

B152LF Suspension Position Sensor - Left Front (Z95)





Connector Part Information

Harness Type: Chassis

OEM Connector: 13873527

Service Connector: 19300594

Description: 3-Way F 1.5 Series, Sealed (GY)

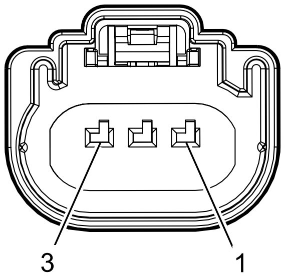
Terminal Part Information

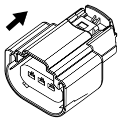
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B152LF Suspension Position Sensor - Left Front (Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/RD	1205	Left Front Strut Position Sensor Voltage Reference	I	-
2	0.5	BK/D-BU	1206	Left Front Strut Position Sensor Low Reference	I	-
3	0.5	BN/WH	1207	Left Front Strut Position Sensor Signal	I	-

B152LR Suspension Position Sensor - Left Rear (Z85 or Z95)





Connector Part Information

Harness Type: Chassis

OEM Connector: 13873527

Service Connector: 19300594

Description: 3-Way F 1.5 Series, Sealed (GY)

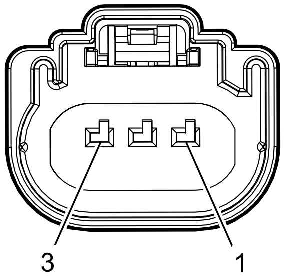
Terminal Part Information

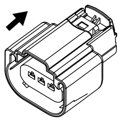
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B152LR Suspension Position Sensor - Left Rear (Z85 or Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/RD	1208	Left Rear Strut Position Sensor Voltage Reference	I	-
2	0.5	BK/L-GN	1209	Left Rear Strut Position Sensor Low Reference	I	-
3	0.5	L-GN/WH	1210	Left Rear Strut Position Sensor Signal	I	-

B152RF Suspension Position Sensor - Right Front (Z95)





Connector Part Information

Harness Type: Chassis

OEM Connector: 13873527

Service Connector: 19300594

Description: 3-Way F 1.5 Series, Sealed (GY)

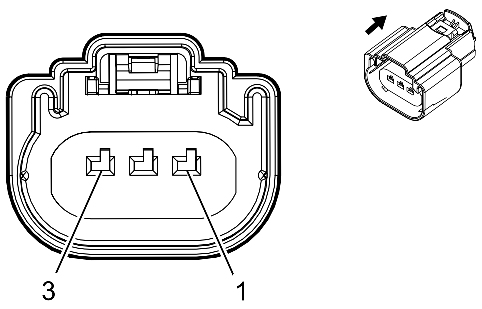
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B152RF Suspension Position Sensor - Right Front (Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	1211	Right Front Strut Position Sensor Voltage Reference	I	-
2	0.5	BK/GY	1212	Right Front Strut Position Sensor Low Reference	I	-
3	0.5	YE/WH	1213	Right Front Strut Position Sensor Signal	I	-

B152RR Suspension Position Sensor - Right Rear (Z85 or Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13873527

Service Connector: 19300594

Description: 3-Way F 1.5 Series, Sealed (GY)

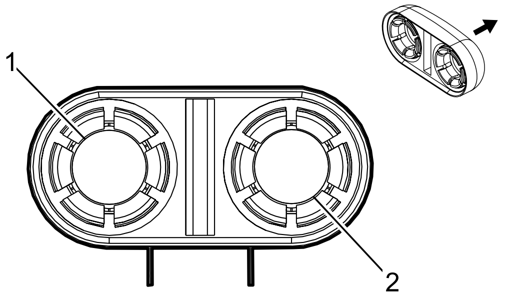
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B152RR Suspension Position Sensor - Right Rear (Z85 or Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/RD	1214	Right Rear Strut Position Sensor Voltage Reference	I	-
2	0.5	BK/YE	1215	Right Rear Strut Position Sensor Low Reference	I	-
3	0.5	L-GN/GY	1216	Right Rear Strut Position Sensor Signal	I	-

B159L Glass Breakage Sensor - Left (UTT)



Connector Part Information

Harness Type: Body

OEM Connector: 13984643

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Snap Type (BK)

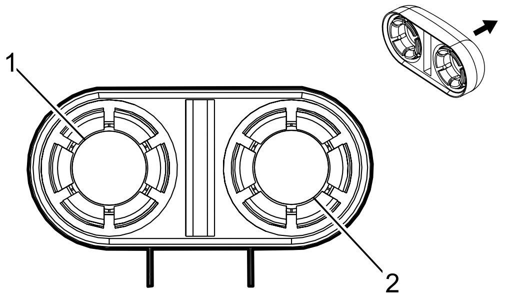
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

B159L Glass Breakage Sensor - Left (UTT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/VT	293	Rear Defog Element Supply Voltage	I	-
2	0.5	D-BU/VT	7597	Glass Breakage Sensor Signal	I	-

B159R Glass Breakage Sensor - Right (UTT)



Connector Part Information

Harness Type: Body

OEM Connector: 13984643

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Snap Type (BK)

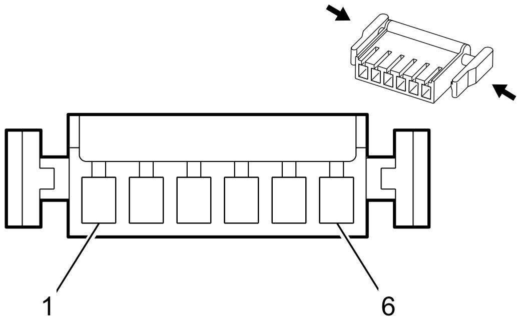
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

B159R Glass Breakage Sensor - Right (UTT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/VT	7597	Glass Breakage Sensor Signal	I	-
2	0.5	VT/D-BU	7598	Glass Breakage Sensor Signal 2	I	-

B165 Content Theft Deterrent Sensor Module (UTT)



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13726957

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Micro Quadlock Series (BK)

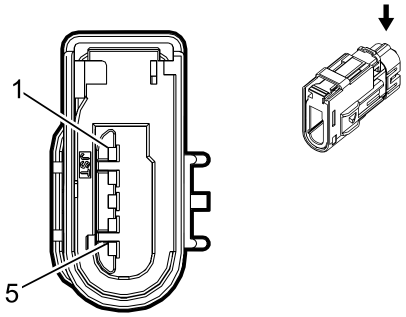
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B165 Content Theft Deterrent Sensor Module (UTT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/BK	5068	Intrusion Sensor Switch Disable Signal	I	-
2	0.35	YE/D-BU	3278	Intrusion Sensor Switch LED Control	I	-
3	0.35	RD/D-BU	4540	Battery Positive Voltage	I	-
4	0.5	L-GN/BN	6132	Linear Interconnect Network Bus 1	I	-
5	0.35	BK	1050	Ground	I	-
6	-	-	-	Not Occupied	-	-

B174G Frontview Camera - Grille (UVH)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13934096

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed (L-GY)

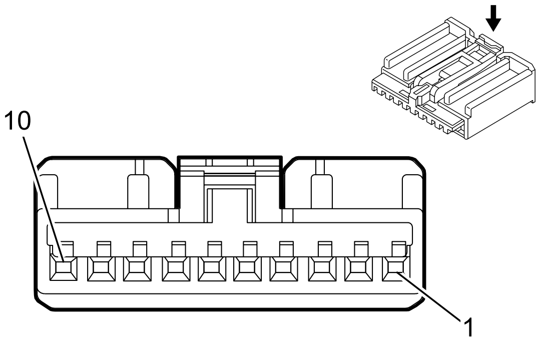
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B174G Frontview Camera - Grille (UVH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU	3373	Auxiliary Video High Signal (2)	I	-
2	0.35	BK	3371	Video Drain Wire (2)	I	-
3	0.35	GY	3372	Auxiliary Video Low Signal (2)	I	-
4	0.35	BK/WH	2551	Signal Ground	I	-
5	0.35	WH/BN	6201	Camera Supply Voltage	I	-

B174W Frontview Camera - Windshield (UFL)



Connector Part Information

Harness Type: Headliner

OEM Connector: 13574592

Service Connector: 13576634

Description: 10-Way F 0.64 Kaizen Series (BK)

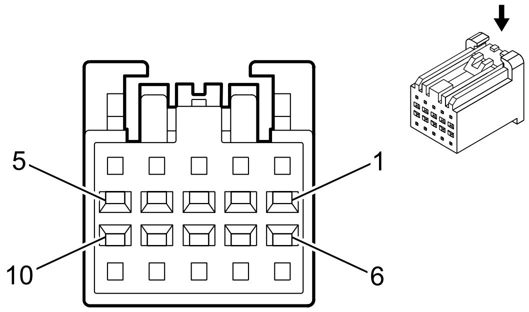
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-215A	SAIT-A03T-M064	14	P	P

B174W Frontview Camera - Windshield (UFL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1050	Ground	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	RD/L-GN	3140	Battery Positive Voltage	I	-
4	0.35	WH	3152	Lane Departure Warning Indicator Control	I	-
5	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
6	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
7	0.35	L-GN	5060	Low Speed GMLAN Serial Data	I	-
8	-	-	-	Not Occupied	-	-
9	0.5	WH/D-BU	5986	Serial Data Communication Enable	I	-
10	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	-

B174W Frontview Camera - Windshield (UGN with Z75)



Connector Part Information

Harness Type: Headliner

OEM Connector: 13876499

Service Connector: 13581139

Description: 10-Way F 0.64 Kaizen Series (GY)

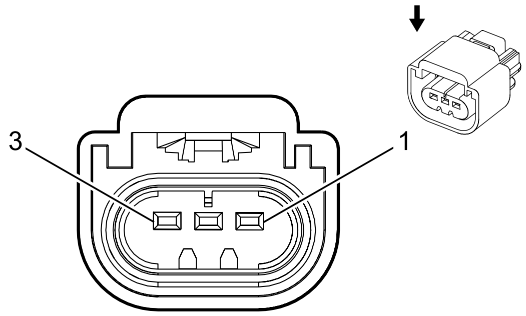
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-215A	SAIT-A03T-M064	14	P	P

B174W Frontview Camera - Windshield (UGN with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.35	RD/L-GN	3140	Battery Positive Voltage	I	-
3	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
4	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
5	0.5	BK	1050	Ground	I	-
6-7	-	-	-	Not Occupied	-	-
8	0.35	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
9	0.35	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
10	0.35	GY/VT	3808	Front Object Sensor Supply Voltage (2)	I	-

B198 Fuel Composition Sensor



Connector Part Information

Harness Type: Chassis

OEM Connector: 13511132

Service Connector: 19301582

Description: 3-Way F 150 GT Series, Sealed (BN)

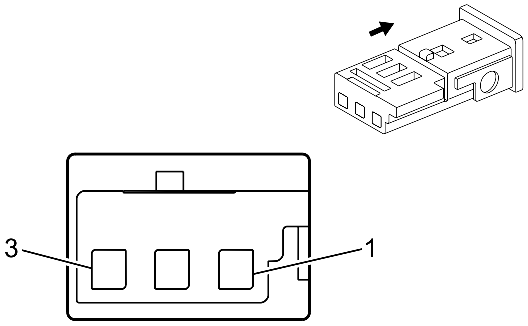
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B198 Fuel Composition Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/D-BU	5294	Powertrain Main Relay Fused Supply (5)	I	-
2	0.5	BK	2150	Ground	I	-
3	0.5	WH	1579	Fuel Temperature/Composition Signal	I	-

B200 Rain Sensor Module



Connector Part Information

Harness Type: Rain Sensor Jumper

OEM Connector: 13153088

Service Connector: 13314078

Description: 3-Way F 0.64 MQS Series, Sealed (BK)

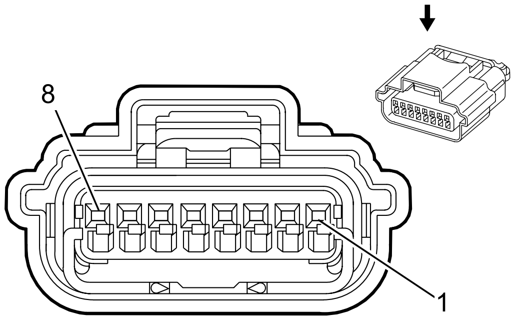
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

B200 Rain Sensor Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/BU	840	Battery Positive Voltage	I	-
2	0.5	D-GN/BN	6132	Linear Interconnect Network Bus 1	I	-
3	0.35	BK	1050	Ground	I	-

B218L Side Object Sensor Module - Left (UKC)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13925108

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 Series, Sealed (BK)

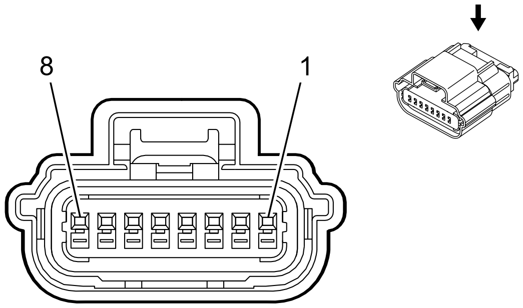
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B218L Side Object Sensor Module - Left (UKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	YE/VT	3830	Serial Data Communication Enable 2	I	-
4	0.5	BU/WH	3812	High Speed GMLAN Serial Data (+) (5)	I	-
5	0.5	D-BU/YE	3810	High Speed GMLAN Serial Data (-) (5)	I	-
6	-	-	-	Not Occupied	-	-
7	0.5 0.5	BK BK	1450 1450	Ground Ground	I	-
8	0.5	RD/L-GN	3140	Battery Positive Voltage	I	-

B218R Side Object Sensor Module - Right (UKC)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13925109

Service Connector: Service by Harness - See Part Catalog

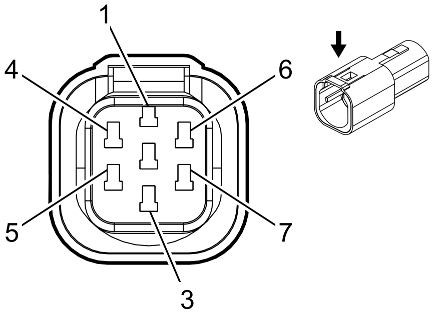
Description: 8-Way F 0.64 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B218R Side Object Sensor Module - Right (UKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	5861	Passenger Side Object Detection LED Signal (1)	I	-
2	0.5	GY/YE	5853	Driver Side Object Detection LED Signal (1)	I	-
3	0.5	YE/VT	3830	Serial Data Communication Enable 2	I	-
4	0.5	BU/WH	3812	High Speed GMLAN Serial Data (+) (5)	I	-
5	0.5	D-BU/YE	3810	High Speed GMLAN Serial Data (-) (5)	I	-
6	-	-	-	Not Occupied	-	-
7	0.5	BK	1450	Ground	I	-
8	0.5	RD/L-GN	3140	Battery Positive Voltage	I	-



Connector Part Information

Harness Type: OSRVM Camera Jumper — Driver

OEM Connector: 13576424

Service Connector: Service by Harness — See Part Catalog

Description: 7-Way M 0.8 Series, Sealed (L-GN)

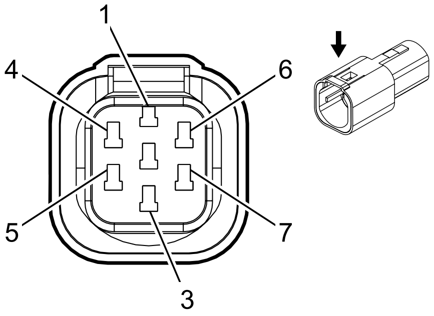
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

B225L Sideview Camera - Left (UVH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/GN	2628	Left Side Vision Camera Video Signal (+)	I	-
2	0.5	BK	2624	Left Side Vision Camera Video Drain Wire	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	GY/GN	2625	Left Side Vision Camera Video Signal (-)	I	-
5	0.5	BK/WH	2551	Ground	I	-
6	0.5	WH/BN	6201	Camera Control	I	-
7	-	-	-	Not Occupied	-	-

B225R Sideview Camera - Right (UVH)



Connector Part Information

Harness Type: OSRVM Camera Jumper — Passenger

OEM Connector: 13576424

Service Connector: Service by Harness — See Part Catalog

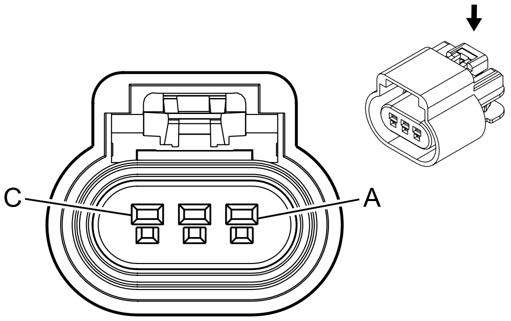
Description: 7-Way M 0.8 Series, Sealed (L-GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

B225R Sideview Camera - Right (UVH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	2627	Right Side Vision Camera Video Signal (+)	I	-
2	0.5	BK	2623	Right Side Vision Camera Video Drain Wire	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	GY/BU	2626	Right Side Vision Camera Video Signal (-)	I	-
5	0.5	BK/WH	2551	Ground	I	-
6	0.5	WH/BN	6201	Camera Control	I	-
7	-	-	-	Not Occupied	-	-



Connector Part Information

Harness Type: Engine

OEM Connector: 15326808

Service Connector: 15306388

Description: 3-Way F 150 GT Series, Sealed (BK)

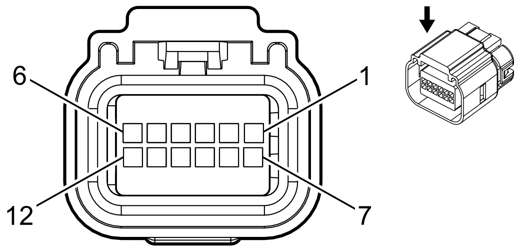
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

B227 Gear Position Sensor (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE/BK	7478	Rotary Position Sensor Return	I	-
B	0.5	WH/RD	7477	Rotary Position Sensor Supply 5V	I	-
C	0.5	WH/L-GN	7479	Rotary Position Sensor Signal	I	-

B233B Radar Sensor Module - Long Range (UVZ or UGN with Z75)



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13833301

Service Connector: 19299773

Description: 12-Way F 1.5 Series, Sealed (BK)

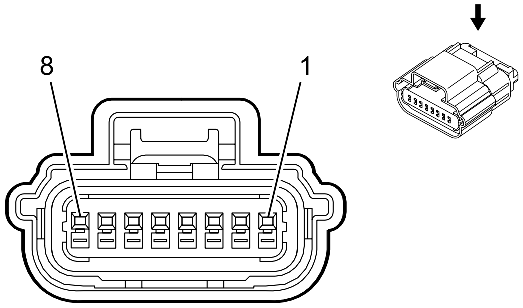
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19300649	J-35616-64B (LT BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

B233B Radar Sensor Module - Long Range (UVZ or UGN with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
3	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
4	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
5	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
6	0.5	GY/VT	3808	Front Object Sensor Supply Voltage (2)	I	-
7	0.5	BK	250	Ground	I	-
8-9	-	-	-	Not Occupied	-	-
10	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
11	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
12	-	-	-	Not Occupied	-	-

B233LF Radar Sensor Module - Short Range Left Front (UVZ)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13916067

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 Series, Sealed (BK)

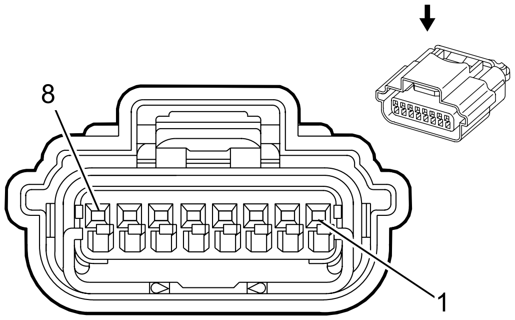
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B233LF Radar Sensor Module - Short Range Left Front (UVZ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
2	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	BK	250	Ground	I	-
5	0.5	GY/VT	3808	Front Object Sensor Supply Voltage (2)	I	-
6	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
7	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
8	0.5	BK	250	Ground	I	-

B233LR Radar Sensor Module - Short Range Left Rear (UVZ)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13912371

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 Series, Sealed (BK)

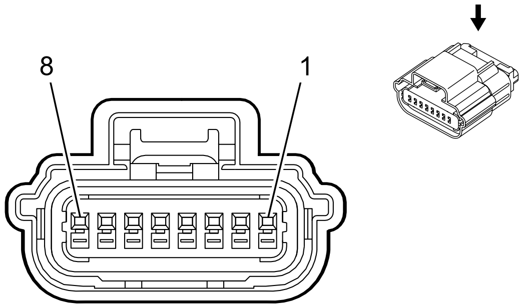
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B233LR Radar Sensor Module - Short Range Left Rear (UVZ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
2	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
3-4	-	-	-	Not Occupied	-	-
5	0.5	BN/VT	3809	Front Object Sensor Supply Voltage (1)	I	-
6	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
7	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
8	0.5	BK	1450	Ground	I	-

B233RF Radar Sensor Module - Short Range Right Front (UVZ)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13912372

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 Series, Sealed (BK)

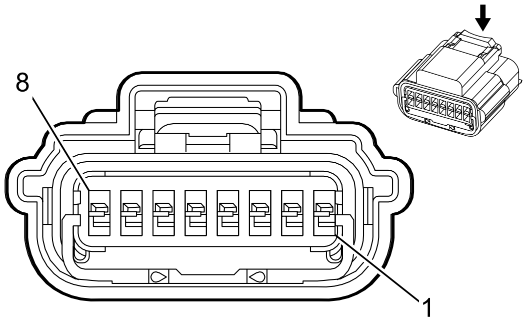
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B233RF Radar Sensor Module - Short Range Right Front (UVZ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
2	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
3	0.5	BK	250	Ground	I	-
4	-	-	-	Not Occupied	-	-
5	0.5	GY/VT	3808	Front Object Sensor Supply Voltage (2)	I	-
6	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
7	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
8	0.5	BK	250	Ground	I	-

B233RR Radar Sensor Module - Short Range Right Rear (UVZ)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13774439

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

B233RR Radar Sensor Module - Short Range Right Rear (UVZ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
2	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
3	0.5	BK	1450	Ground	I	-
4	0.5	BK	1450	Ground	I	-
5	0.5	BN/VT	3809	Front Object Sensor Supply Voltage (1)	I	-
6	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
7	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
8	0.5	BK	1450	Ground	I	-

C1 Battery (+)

—

Connector Part Information

Harness Type: Fuse Block - Battery

OEM Connector: 22806489

Service Connector: Service by Cable Assembly — See Part Catalog

Description: Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

C1 Battery (+)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD	1	Unfused Battery Positive Voltage	I	-

C1 Battery (-)

—

Connector Part Information

Harness Type: Battery

OEM Connector: 22806491

Service Connector: Service by Harness — See Part Catalog

Description: Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	No Tool Required	Not Available	Not Available	Not Available	Not Available

C1 Battery (-)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	35	BK	450	Ground	I	-
	10	BK	250	Ground		-

C1B Battery - Auxiliary (+) (5W4 or 9C1)

Connector Part Information

Harness Type: Fuse Block - Battery Auxiliary

OEM Connector: Not Available

Service Connector: Service by Harness – See Part Catalog

Description: Battery Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness – See Part Catalog	No Tool Required	No Tool Required	Not Available	Not Available	Not Available	Not Available

C1B Battery - Auxiliary (+) (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
+	-	-	-	Auxiliary Battery Positive Voltage	I	—

C1B Battery - Auxiliary (-) (5W4 or 9C1)

Connector Part Information

Harness Type: Auxiliary Battery Cable

OEM Connector: 22806491

Service Connector: Service by Harness – See Part Catalog

Description: Battery Ring Terminal

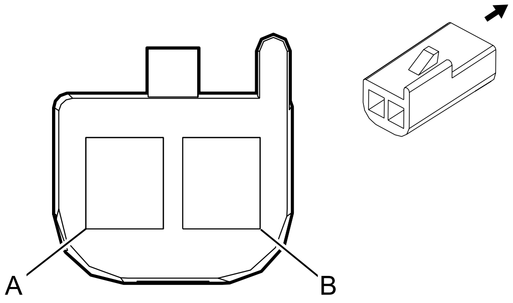
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness – See Part Catalog	No Tool Required	No Tool Required	Not Available	Not Available	Not Available	Not Available

C1B Battery - Auxiliary (-) (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
−	35	BK	350	Auxiliary Battery Ground	I	—

E1A Accent Lamp - Driver Seat (A95 or AN3)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 12047662

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 Metri Pack Series (BK)

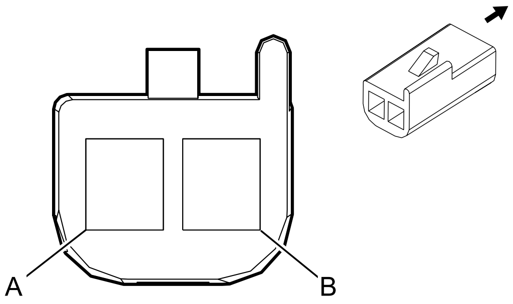
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1A Accent Lamp - Driver Seat (A95 or AN3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	GY	157	Interior Lamp Control	I	-
B	0.35	BK	1150	Ground	I	-

E1AA Floor Accent Lamp - Left Front



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12047662

Service Connector: 12085535

Description: 2-Way F 150 Metri Pack Series (BK)

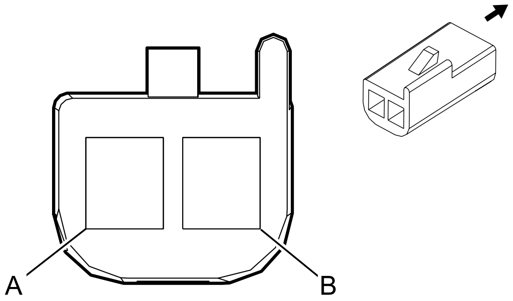
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1AA Floor Accent Lamp - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/YE	7557	LED Ambient Lighting Control 1	I	-
B	0.35	BK/WH	1851	Signal Ground	I	-

E1AB Floor Accent Lamp - Right Front



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12047662

Service Connector: 12085535

Description: 2-Way F 150 Metri Pack Series (BK)

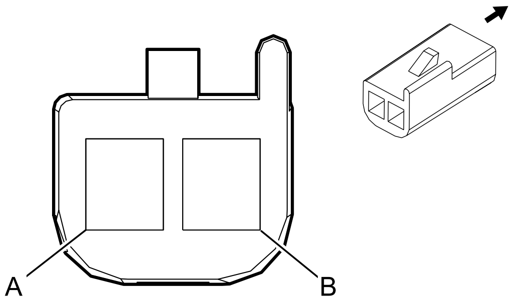
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1AB Floor Accent Lamp - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/YE	7557	LED Ambient Lighting Control 1	I	-
B	0.35	BK	1050	Ground	I	-

E1B Accent Lamp - Passenger Seat (A95 or AN3)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 12047662

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 Metri Pack Series (BK)

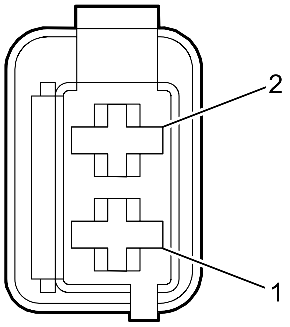
Terminal Part Information

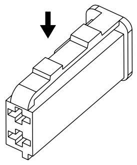
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1B Accent Lamp - Passenger Seat (A95 or AN3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	GY	157	Interior Lamp Control	I	-
B	0.35	BK	1250	Ground	I	-

E1C Accent Lamp - Driver Door Handle





Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

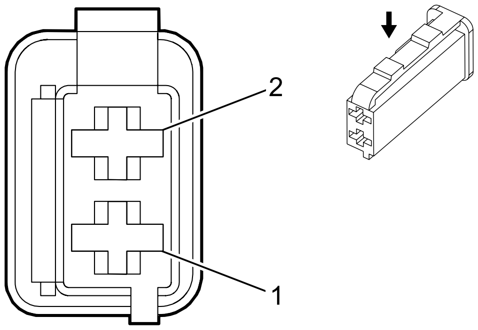
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1C Accent Lamp - Driver Door Handle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1150	Ground	I	-

E1D Accent Lamp - Driver Door (Z75)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

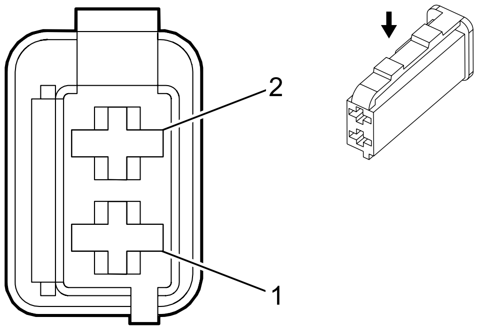
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1D Accent Lamp - Driver Door (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1150	Ground	I	-

E1E Accent Lamp - Left Rear Door Handle (X88 or Z88)



Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 13670097

Service Connector: 13580951

Description: 2-Way F 1.6 Timer Series (BK)

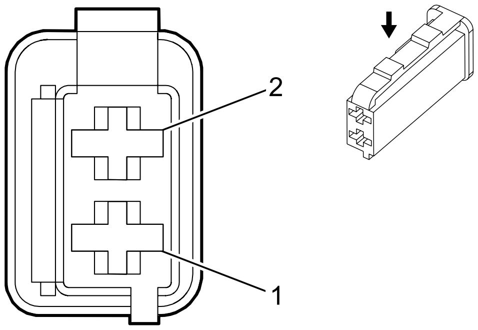
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575537	J-35616-14 (GN)	J-38125-560	962943-5	16	Not Available	Not Available
II	13575537	J-35616-14 (GN)	J-38125-560	962943-5	16	E	A

E1E Accent Lamp - Left Rear Door Handle (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1150	Ground	II	

E1E Accent Lamp - Left Rear Door Handle (Z75)



Connector Part Information

Harness Type: Left Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

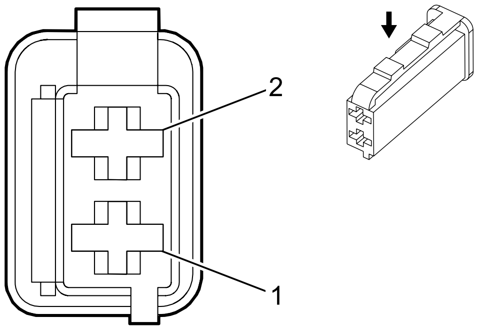
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1E Accent Lamp - Left Rear Door Handle (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1150	Ground	I	-

E1F Accent Lamp - Right Rear Door Handle (X88 or Z88)



Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

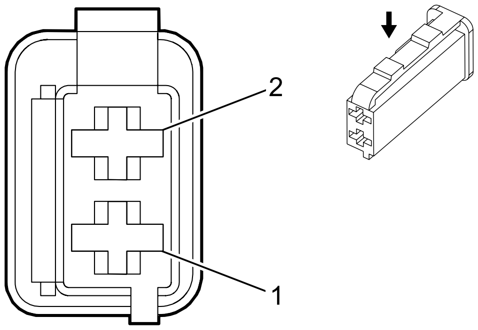
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1F Accent Lamp - Right Rear Door Handle (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1250	Ground	I	-

E1F Accent Lamp - Right Rear Door Handle (Z75)



Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 13670097

Service Connector: 13580951

Description: 2-Way F 1.6 Timer Series (BK)

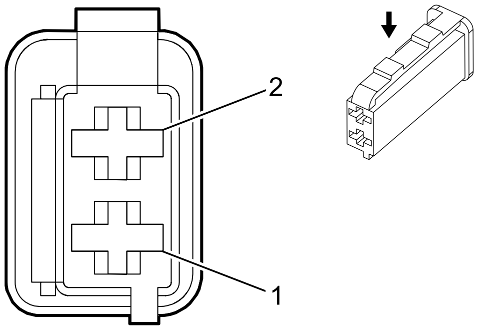
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575537	J-35616-14 (GN)	J-38125-560	962943-5	16	Not Available	Not Available
II	13575760	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1
III	13575537	J-35616-14 (GN)	J-38125-560	962943-5	16	E	A

E1F Accent Lamp - Right Rear Door Handle (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1250	Ground	I	-

E1LR Accent Lamp - Left Rear Door (Z75)



Connector Part Information

Harness Type: Left Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

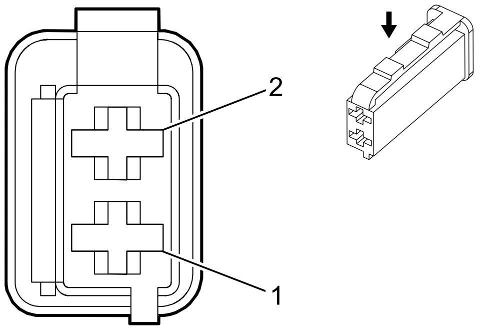
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1LR Accent Lamp - Left Rear Door (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1150	Ground	I	-

E1M Accent Lamp - Passenger Door Handle



Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

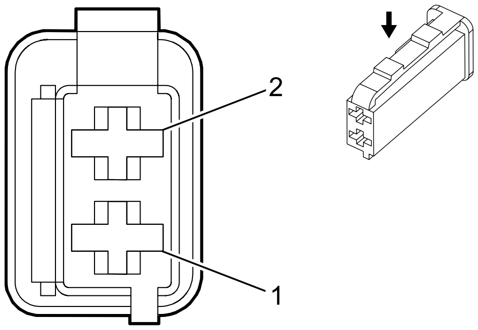
Description: 2-Way F 1.6 Timer Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1M Accent Lamp - Passenger Door Handle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1250	Ground	I	-



Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

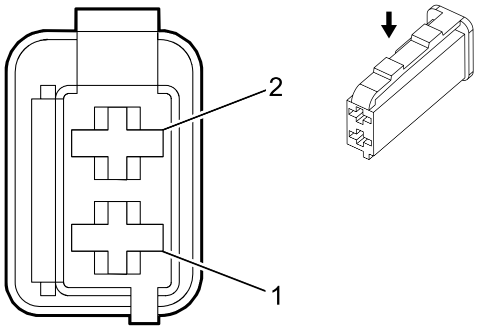
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1P Accent Lamp - Passenger Door (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1250	Ground	I	-

E1RR Accent Lamp - Right Rear Door (Z75)



Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

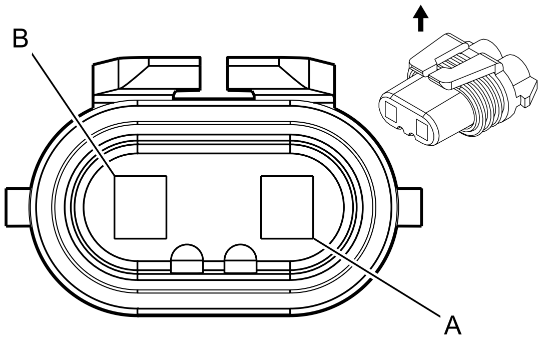
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E1RR Accent Lamp - Right Rear Door (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1250	Ground	I	-

E4E Headlamp - Left High Beam (X88 or Z88)



Connector Part Information

Harness Type: Front Headlamp - Left

OEM Connector: 12059183

Service Connector: 12101898

Description: 2-Way F 2.0 Pitch Series (NA)

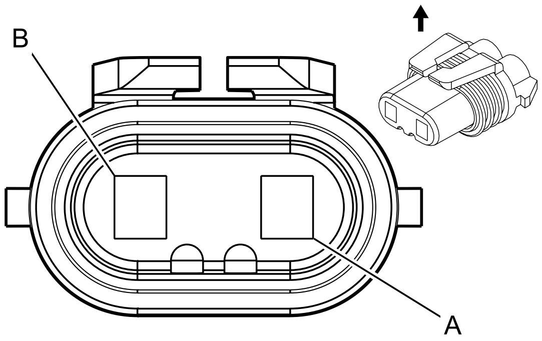
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E4E Headlamp - Left High Beam (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5 0.5	WH BU	711 711	Left Headlamp High Beam Supply Voltage Left Headlamp High Beam Supply Voltage	I I	X88 Z88
B	0.5	BK	150	Ground	I	—

E4F Headlamp - Right High Beam (X88 or Z88)



Connector Part Information

Harness Type: Front Headlamp - Right

OEM Connector: 12059183

Service Connector: 12101898

Description: 2-Way F 2.0 Pitch Series (NA)

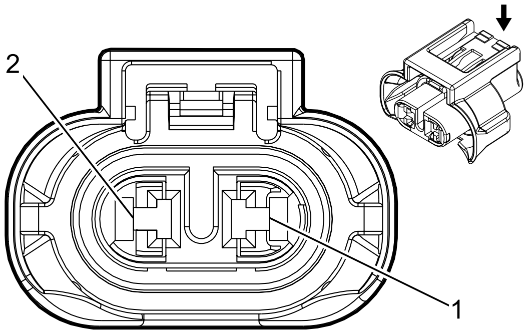
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E4F Headlamp - Right High Beam (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH	311	Right Headlamp High Beam Supply Voltage	I	X88
	0.5	BU	311	Right Headlamp High Beam Supply Voltage	I	Z88
B	0.5	BK	250	Ground	I	—

E4G Headlamp - Left Low Beam (X88 or Z88 without T4F)



Connector Part Information

Harness Type: Front Headlamp - Left

OEM Connector: F194300

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Apex Series, Sealed (BK)

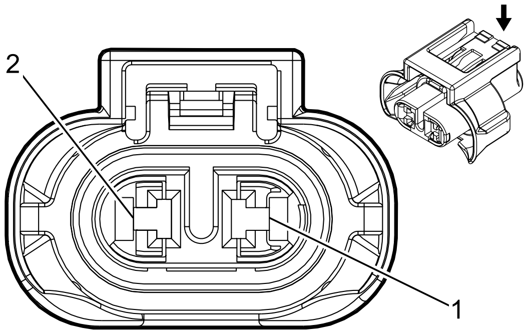
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E4G Headlamp - Left Low Beam (X88 or Z88 without T4F)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	PU	712	Left Headlamp Low Beam Supply Voltage	I	X88
	0.5	BN	712	Left Headlamp Low Beam Supply Voltage	I	Z88
2	0.5	BK	150	Ground	I	—

E4H Headlamp - Right Low Beam (X88 or Z88 without T4F)



Connector Part Information

Harness Type: Front Headlamp - Right

OEM Connector: F194300

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Apex Series, Sealed (BK)

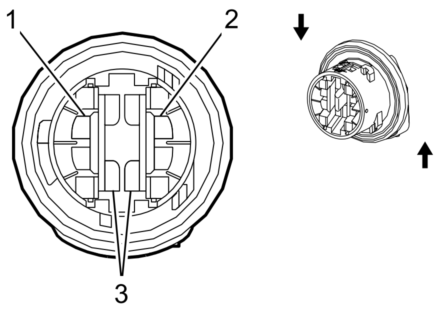
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E4H Headlamp - Right Low Beam (X88 or Z88 without T4F)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH	312	Right Headlamp Low Beam Supply Voltage	I	X88
	0.5	BU	312	Right Headlamp Low Beam Supply Voltage	I	Z88
B	0.5	BK	250	Ground	I	—

E4LF Turn Signal Lamp - Left Front (Z75)



Connector Part Information

Harness Type: Left Multifunction Lamp Harness

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

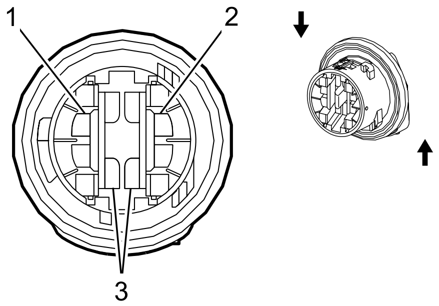
Description: 3-Way F Bulb Socket, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness - See Part Catalog	Not Available	Not Available	Service by Harness - See Part Catalog	Not Available	Not Available	Not Available

E4LF Turn Signal Lamp - Left Front (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1314	Left Front Turn Signal Lamp Control	I	-
2	-	-	-	Not Occupied	-	-
3	1	BK	150	Ground	I	-



Connector Part Information

Harness Type: Right Multifunction Lamp Harness

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 3-Way F Bulb Socket, Sealed (BK)

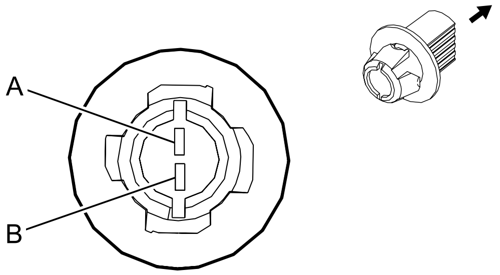
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness - See Part Catalog	Not Available	Not Available	Service by Harness - See Part Catalog	Not Available	Not Available	Not Available

E4RF Turn Signal Lamp - Right Front (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1315	Rightt Front Turn Signal Lamp Control	I	-
2	-	-	-	Not Occupied	-	-
3	1	BK	250	Ground	I	-

E5A Backup Lamp - Left (X88 or Z88)



Connector Part Information

Harness Type: Tail Lamp - Left

OEM Connector: EEM0024

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F S8 Lamp Socket (GY)

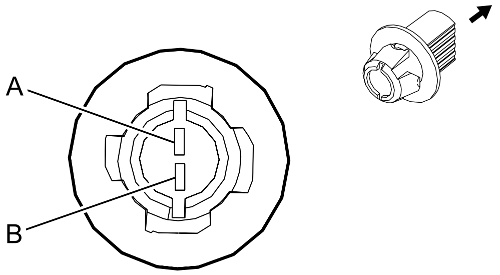
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E5A Backup Lamp - Left (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	24	Backup Lamp Supply Voltage	I	—
B	0.75 0.75	BK BK	1750 1750	Ground Ground	I	—

E5B Backup Lamp - Right (X88 or Z88)



Connector Part Information

Harness Type: Tail Lamp - Right

OEM Connector: EEM0024

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F S8 Lamp Socket (GY)

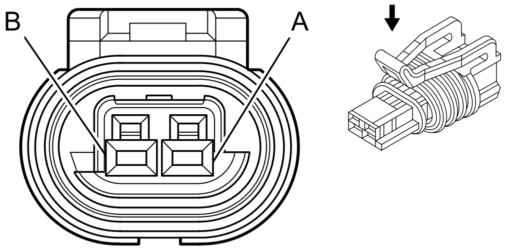
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E5B Backup Lamp - Right (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	24	Backup Lamp Supply Voltage	I	—
B	0.75 0.75	BK BK	2150 2150	Ground Ground	I	—

E6 Center High Mounted Stop Lamp



Connector Part Information

Harness Type: CHMSL Jumper

OEM Connector: 15449028

Service Connector: 88987993

Description: 2-Way F 150 GT Series, Sealed (BK)

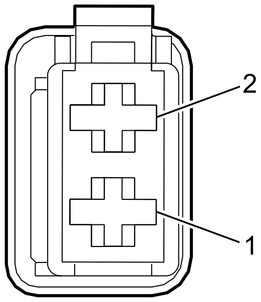
Terminal Part Information

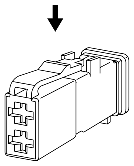
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13584457	J-35616-2A (GY)	J-38125-553	15326267	19	E	4

E6 Center High Mounted Stop Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	VT/WH	5065	Stop Lamp Relay Coil Supply Voltage	I	-
B	0.5	BK	1450	Ground	I	-

E7L License Plate Lamp - Left





Connector Part Information

Harness Type: Liftgate

OEM Connector: 10787633

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 Timer Series (GY)

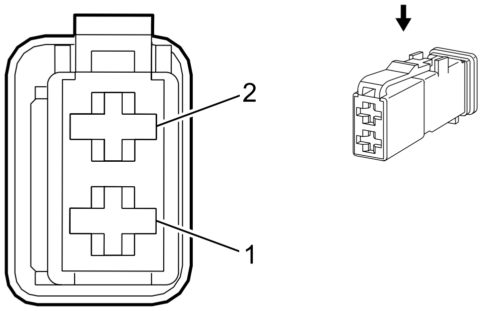
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E7L License Plate Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	6846	Rear License Lamp Supply Voltage	I	-
2	0.5	BK	1450	Ground	I	-

E7R License Plate Lamp - Right



Connector Part Information

Harness Type: Liftgate

OEM Connector: 10787633

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 Timer Series (GY)

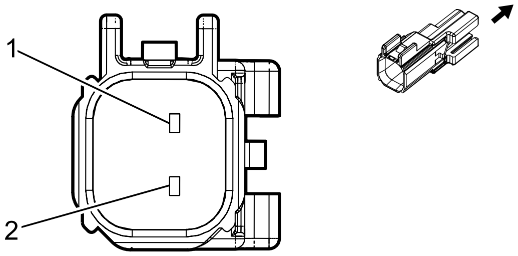
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E7R License Plate Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/YE	6846	Rear License Lamp Supply Voltage	I	-
2	0.5	BK	1450	Ground	I	-

E8A Door Sill Plate Lamp - Driver (Z75)



Connector Part Information

Harness Type: Body

OEM Connector: 13719748

Service Connector: 19301583

Description: 2-Way M 1.5 Series, Sealed (BK)

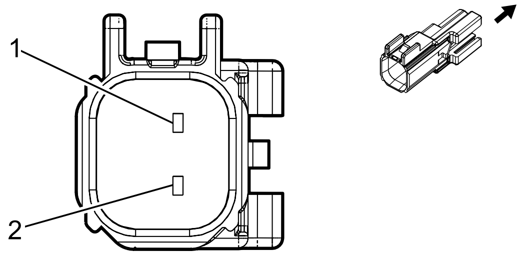
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E8A Door Sill Plate Lamp - Driver (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	I	-
2	0.5	BK	1150	Ground	I	-

E8B Door Sill Plate Lamp - Passenger (Z75)



Connector Part Information

Harness Type: Body

OEM Connector: 13719748

Service Connector: 19301583

Description: 2-Way M 1.5 Series, Sealed (BK)

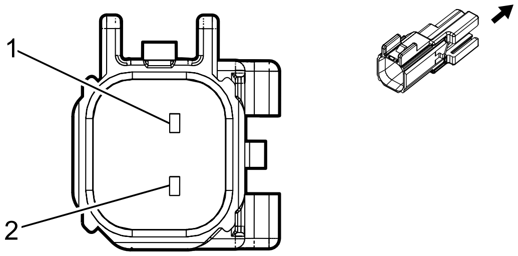
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E8B Door Sill Plate Lamp - Passenger (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	I	-
2	0.5	BK	1250	Ground	I	-

E8Q Door Sill Plate Lamp - Left Rear (Z75)



Connector Part Information

Harness Type: Body

OEM Connector: 13719748

Service Connector: 19301583

Description: 2-Way M 1.5 Series, Sealed (BK)

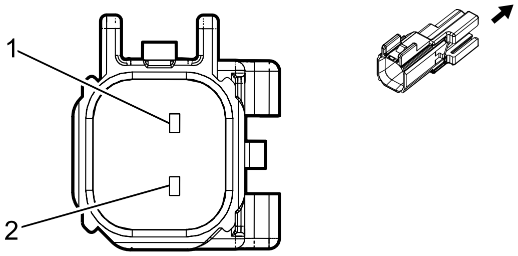
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E8Q Door Sill Plate Lamp - Left Rear (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	I	-
2	0.5	BK	1150	Ground	I	-

E8R Door Sill Plate Lamp - Right Rear (Z75)



Connector Part Information

Harness Type: Body

OEM Connector: 13719748

Service Connector: 19301583

Description: 2-Way M 1.5 Series, Sealed (BK)

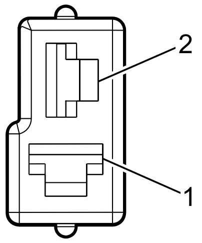
Terminal Part Information

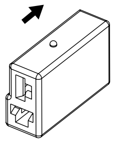
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E8R Door Sill Plate Lamp - Right Rear (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	I	-
2	0.5	BK	1250	Ground	I	-

E8YD Outside Rearview Mirror Courtesy Lamp - Driver (DL3)





Connector Part Information

Harness Type: Outside Rearview Mirror — Driver

OEM Connector: MHFC502W

Service Connector: Service by Component — See Part Catalog

Description: 2-Way F (WH)

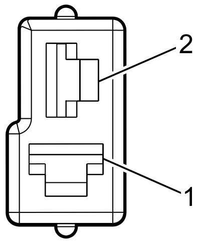
Terminal Part Information

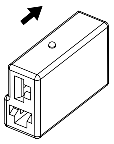
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E8YD Outside Rearview Mirror Courtesy Lamp - Driver (DL3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/WH	5996	Driver Outside Rear View Mirror Puddle Lamp Control	I	-
2	0.5	BK/WH	1150	Ground	I	-

E8YP Outside Rearview Mirror Courtesy Lamp - Passenger (DL3)





Connector Part Information

Harness Type: Outside Rearview Mirror — Passenger

OEM Connector: MHFC502W

Service Connector: Service by Component — See Part Catalog

Description: 2-Way F (WH)

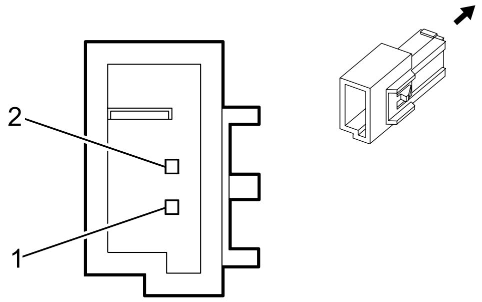
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E8YP Outside Rearview Mirror Courtesy Lamp - Passenger (DL3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/WH	5996	Passenger Outside Rear View Mirror Puddle Lamp Control	I	-
2	0.5	BK/WH	1250	Ground	I	-

E14A Seat Heating Element - Driver Back (KA1 or KB6)



Connector Part Information

Harness Type: Driver Seat Back

OEM Connector: 19153429

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 2.8 Series, Sealed (BK)

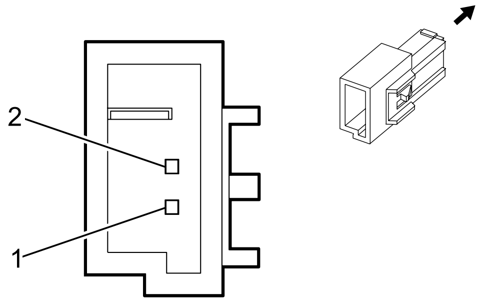
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-65B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E14A Seat Heating Element - Driver Back (KA1 or KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/BN	2432	Driver Heated Back Element Supply Voltage	I	-
2	0.75	BK/BK	1150	Ground	I	-

E14B Seat Heating Element - Driver Cushion (KA1 or KB6)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 19153429

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 0.64 Series (BK)

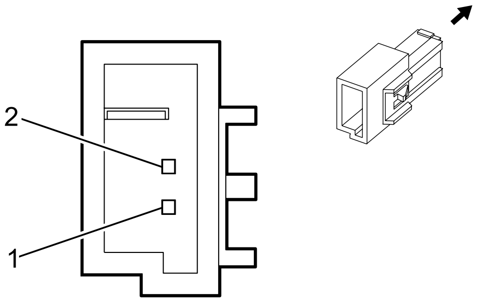
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

E14B Seat Heating Element - Driver Cushion (KA1 or KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/VT	2077	Driver Heated Seat Element Supply Voltage	I	-
2	0.75	BK	1150	Ground	I	-

E14C Seat Heating Element - Passenger Back (KA1 or KB6)



Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: 1452324-1

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 0.64 Series (BK)

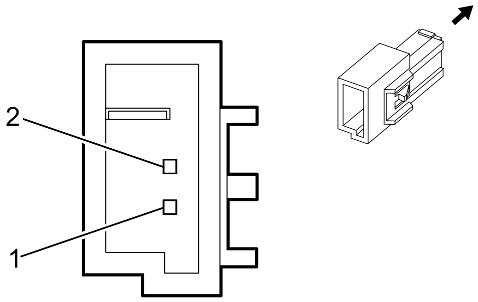
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-65B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E14C Seat Heating Element - Passenger Back (KA1 or KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/WH	2481	Passenger Heated Back Element Supply Voltage	I	-
2	0.75	BK/BK	1250	Ground	I	-

E14D Seat Heating Element - Passenger Cushion (KA1 or KB6)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 19153429

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 0.64 Series (BK)

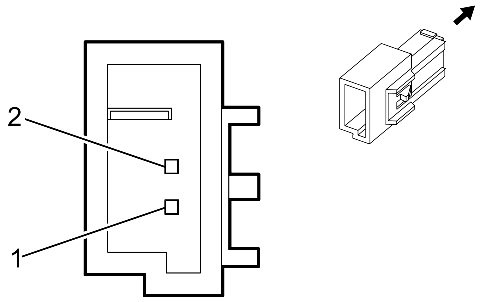
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E14D Seat Heating Element - Passenger Cushion (KA1 or KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/L-BU	2479	Passenger Heated Seat Element Supply Voltage	I	-
2	0.75	BK	1250	Ground	I	-

E14F Seat Heating Element - Left Rear Cushion (KA6)



Connector Part Information

Harness Type: 2nd Row Seat Left

OEM Connector: 19153429

Service Connector: Service by Harness - See Part Catalog

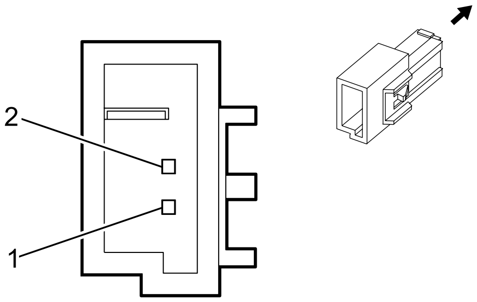
Description: 2-Way F 0.64 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E14F Seat Heating Element - Left Rear Cushion (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY	2294	Left Rear Heated Seat Cushion Element Supply Voltage	I	-
2	0.75	BK	1150	Ground	I	-



Connector Part Information

Harness Type: 2nd Row Seat Right

OEM Connector: 19153429

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5, 2.8 Series (BK)

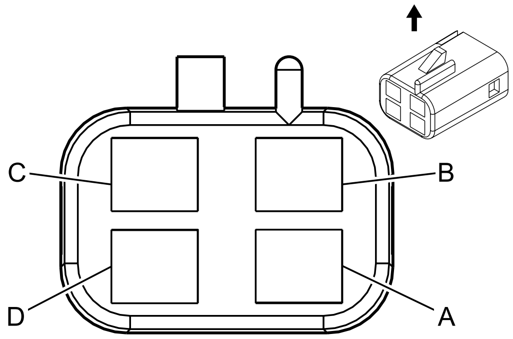
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E14H Seat Heating Element - Right Rear Cushion (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	L-GN	2296	Right Rear Heated Seat Cushion Element Supply Voltage	I	-
2	0.75	BK	1250	Ground	I	-

E15 Steering Wheel Heater (UVD)



Connector Part Information

Harness Type: Steering Wheel Harness

OEM Connector: 12047785

Service Connector: 12102900

Description: 4-Way F 150 Metri Pack Series (BK)

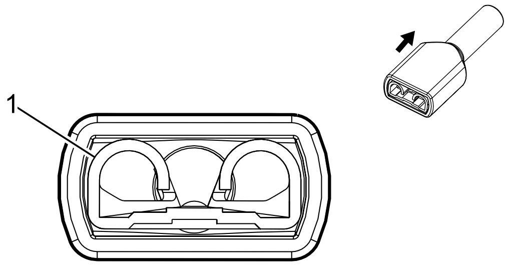
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E15 Steering Wheel Heater (UVD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75 0.5	YE RD	1050 1050	Ground Ground	I I	X88 or Z88 Z75
B	0.75 0.5	YE RD	5888 5888	Heated Steering Wheel High Control Heated Steering Wheel High Control	I I	X88 or Z88 Z75
C	0.5 0.35	RD/BK BK/RD	5886 5886	Heated Steering Wheel Sensor Signal Heated Steering Wheel Sensor Signal	I I	X88 or Z88 Z75
D	0.5 0.35	RD/BK BK/RD	1050 5885	Ground Heated Steering Wheel Voltage Reference	I I	X88 or Z88 Z75

E17D Outside Rearview Mirror Glass - Driver X1 (DL3 or DR4)



Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Driver

OEM Connector: 9-520272-2

Service Connector: Service by Harness - See Part

Description: 1-Way F 250 Series (BK)

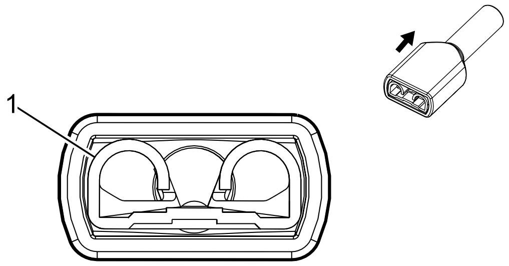
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17D Outside Rearview Mirror Glass - Driver X1 (DL3 or DR4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	2267	Mirror Heating Element Supply Voltage	I	-

E17D Outside Rearview Mirror Glass - Driver X2 (DL3 or DR4)



Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Driver

OEM Connector: 9-520272-2

Service Connector: Service by Harness - See Part

Description: 1-Way F 250 Series (BK)

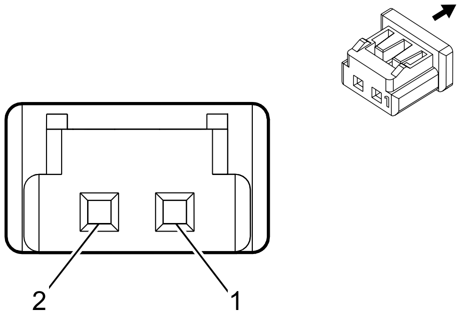
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17D Outside Rearview Mirror Glass - Driver X2 (DL3 or DR4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1150	Ground	I	-

E17D Outside Rearveiw Mirror Glass - Driver X3 (UKC)



Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Driver

OEM Connector: 51090-0200

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F 2.0 Pitch Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17D Outside Rearveiw Mirror Glass - Driver X3 (UKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.21	GN	5853	Driver Side Object Detection LED Signal (1)	I	—
2	0.21	VT	1150	Ground	I	—

E17D Outside Rearveiw Mirror Glass - Driver X4 (DL3)

—

Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Driver

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F (NA)

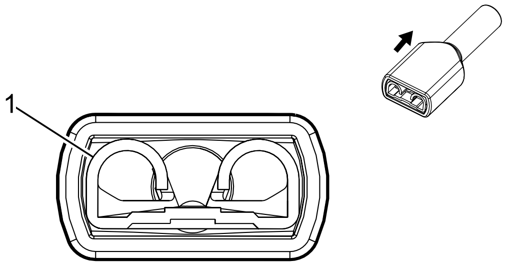
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17D Outside Rearveiw Mirror Glass - Driver X4 (DL3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.21	BU	1314	Left Front Turn Signal Lamp Supply Voltage	I	—
2	0.21	BK/RD	1150	Ground	I	—

E17P Outside Rearview Mirror Glass - Passenger X1 (DL3 or DR4)



Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Passenger

OEM Connector: 9-520272-2

Service Connector: Service by Harness - See Part

Description: 1-Way F 250 Series (BK)

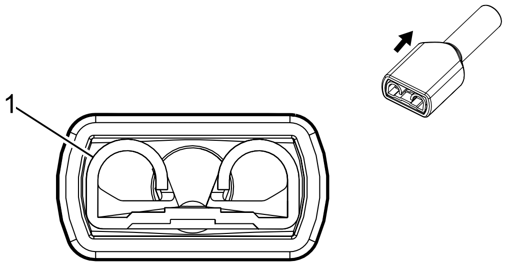
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17P Outside Rearview Mirror Glass - Passenger X1 (DL3 or DR4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	2267	Mirror Heating Element Supply Voltage	I	-

E17P Outside Rearview Mirror Glass - Passenger X2 (DL3 or DR4)



Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Passenger

OEM Connector: 9-520272-2

Service Connector: Service by Harness - See Part

Description: 1-Way F 250 Series (BK)

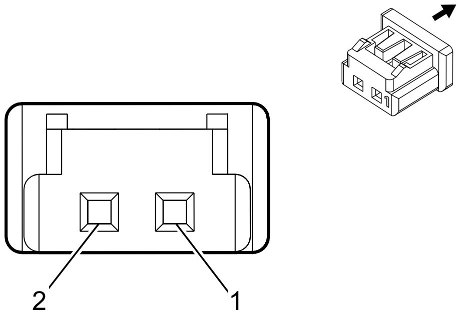
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17P Outside Rearview Mirror Glass - Passenger X2 (DL3 or DR4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1250	Ground	I	-

E17P Outside Rearveiw Mirror Glass - Passenger X3 (UKC)



Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Passenger

OEM Connector: 51090-0200

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F 2.0 Pitch Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17P Outside Rearveiw Mirror Glass - Passenger X3 (UKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.21	GN	5861	Passenger Side Object Detection LED Signal (1)	I	—
2	0.21	VT	1250	Ground	I	—

E17P Outside Rearview Mirror Glass - Passenger X4 (DL3)

—

Connector Part Information

Harness Type: Outside Rearview Mirror Glass - Passenger

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F (NA)

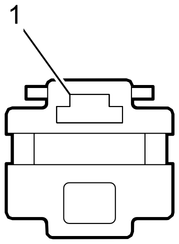
Terminal Part Information

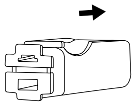
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E17P Outside Rearview Mirror Glass - Passenger X4 (DL3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.21	BU	1315	Right Front Turn Signal Lamp Control	I	—
2	0.21	BK/RD	1250	Ground	I	—

E18 Rear Defogger Grid X1





Connector Part Information

Harness Type: Liftgate

OEM Connector: 13511619

Service Connector: Service by Harness - See Part Catalog

Description: 1-Way F 250 Series (BK)

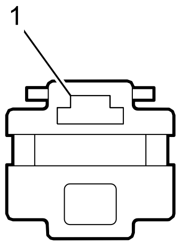
Terminal Part Information

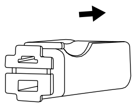
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

E18 Rear Defogger Grid X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BK	1450	Ground	I	-

E18 Rear Defogger Grid X2





Connector Part Information

Harness Type: Liftgate

OEM Connector: 13511619

Service Connector: Service by Harness - See Part Catalog

Description: 1-Way F 250 Series (BK)

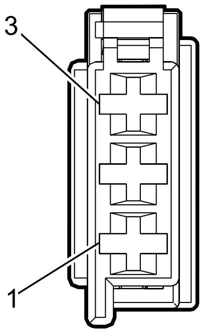
Terminal Part Information

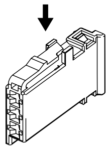
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

E18 Rear Defogger Grid X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BK	293	Rear Defog Element Supply Voltage	I	-

E28 Center Console Compartment Lamp (D07 without DCK)





Connector Part Information

Harness Type: Floor Console

OEM Connector: 10865339

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 1.6 Micro Timer Series (BK)

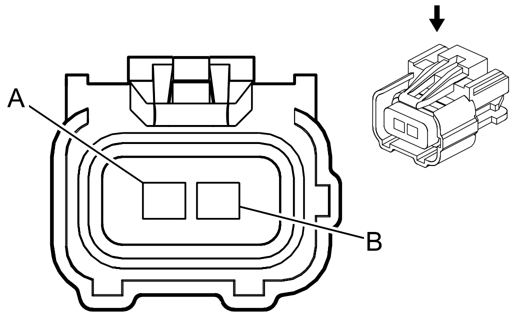
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E28 Center Console Compartment Lamp (D07 without DCK)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	6815	Inadvertent Power Control	I	-
2	0.5	BK	1050	Ground	I	-
3	-	-	-	Not Occupied	-	-

E29LF Fog Lamp - Left Front (T3U)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 15489797

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 Series (BK)

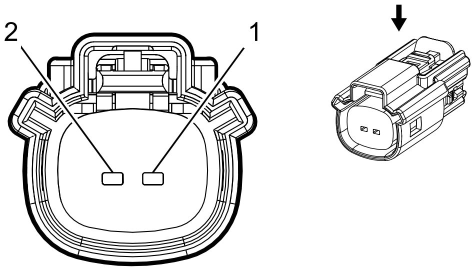
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E29LF Fog Lamp - Left Front (T3U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN/VT	2234	Front Fog Lamp Supply Voltage	I	-
B	0.5	BK	150	Ground	I	-

E29LR Fog Lamp - Left Rear (X88 with T79)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13782480

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 MX Series, Sealed (BK)

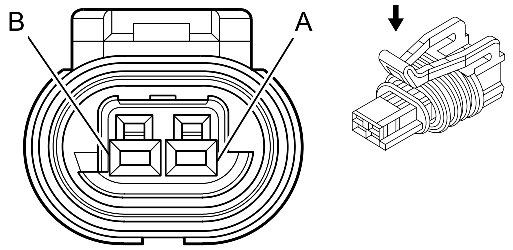
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E29LR Fog Lamp - Left Rear (X88 with T79)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GY	122	Rear Fog Lamp Supply Voltage	I	-
2	0.5	BK	1450	Ground	I	-

E29LR Fog Lamp - Left Rear (Z75 with T79)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 15449028

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series, Sealed (BK)

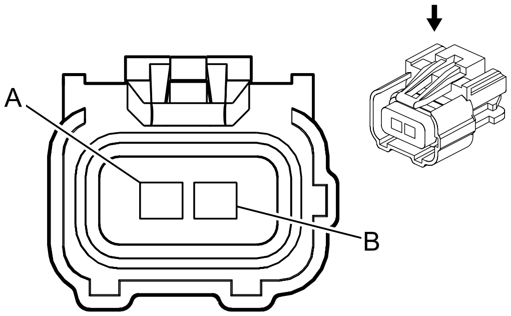
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E29LR Fog Lamp - Left Rear (Z75 with T79)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE/GY	122	Rear Fog Lamp Supply Voltage	I	-
B	0.5	BK	1450	Ground	I	-

E29RF Fog Lamp - Right Front (T3U)



Connector Part Information

Harness Type: Front Bumper

OEM Connector: 15489797

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 Series (BK)

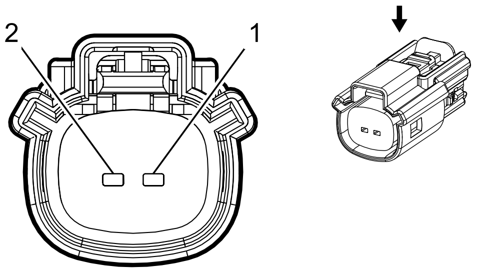
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E29RF Fog Lamp - Right Front (T3U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN/VT	2234	Front Fog Lamp Supply Voltage	I	-
B	0.5	BK	250	Ground	I	-

E29RR Fog Lamp - Right Rear (X88 with T79)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13782480

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 MX Series, Sealed (BK)

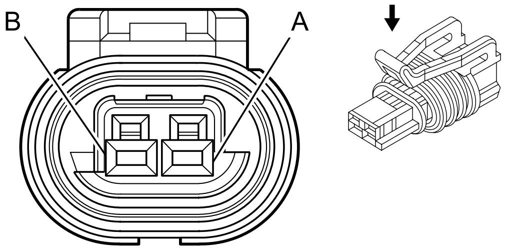
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E29RR Fog Lamp - Right Rear (X88 with T79)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GY	122	Rear Fog Lamp Supply Voltage	I	-
2	0.5	BK	1450	Ground	I	-

E29RR Fog Lamp - Right Rear (Z75 with T79)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 15449028

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series, Sealed (BK)

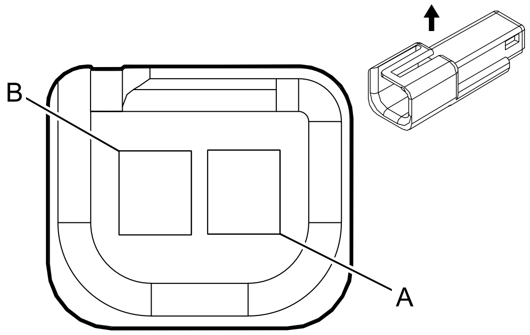
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E29RR Fog Lamp - Right Rear (Z75 with T79)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE/GY	122	Rear Fog Lamp Supply Voltage	I	-
B	0.5	BK	1450	Ground	I	-

E31L Sunshade Mirror Lamp - Left



Connector Part Information

Harness Type: Headliner

OEM Connector: 12047663

Service Connector: 13584278

Description: 2-Way M 150 Metri Pack Series (BK)

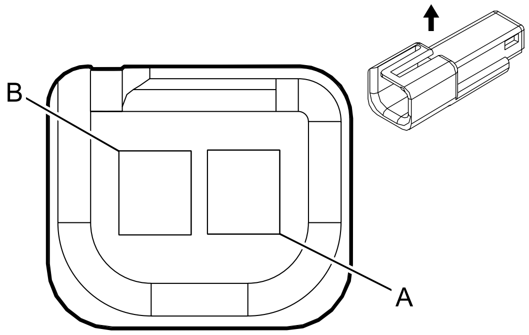
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E31L Sunshade Mirror Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	-
B	0.5	BK	1050	Ground	I	-

E31R Sunshade Mirror Lamp - Right



Connector Part Information

Harness Type: Headliner

OEM Connector: 12047663

Service Connector: 13584278

Description: 2-Way M 150 Metri Pack Series (BK)

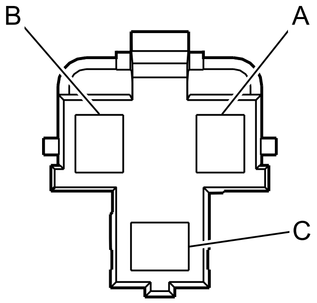
Terminal Part Information

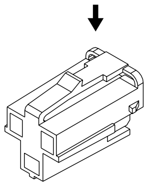
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E31R Sunshade Mirror Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	-
B	0.5	BK	1050	Ground	I	-

E32 Cigarette Lighter Receptacle (DT4 with AZ3)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

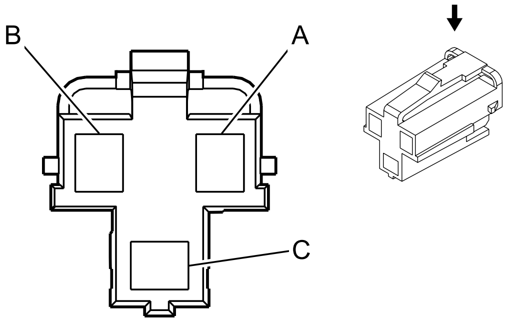
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

E32 Cigarette Lighter Receptacle (DT4 with AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/WH	1040	Battery Positive Voltage	I	-
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1050	Ground	I	-

E32 Cigarette Lighter Receptacle (DT4 with D07)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

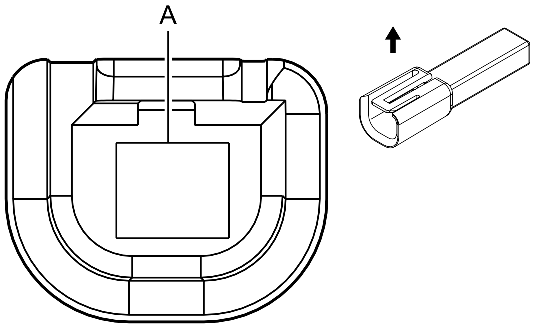
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

E32 Cigarette Lighter Receptacle (DT4 with D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/WH	1040	Battery Positive Voltage	I	-
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1050	Ground	I	-

E35L Exterior Spot Lamp - Left (7X6 or 7X7)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12047683

Service Connector: 12101828

Description: 1-Way M 150 Metri Pack Series (BK)

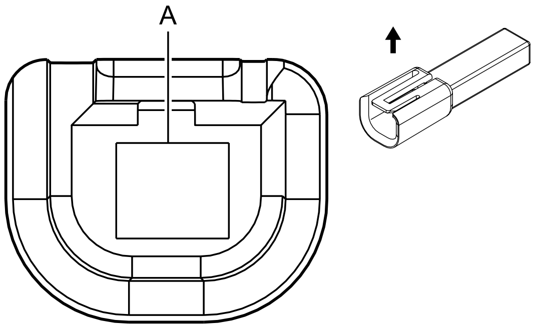
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E35L Exterior Spot Lamp - Left (7X6 or 7X7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD/VT	4640	Battery Positive Voltage	I	-

E35R Exterior Spot Lamp - Right (7X7)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12047683

Service Connector: 12101828

Description: 1-Way M 150 Metri Pack Series (BK)

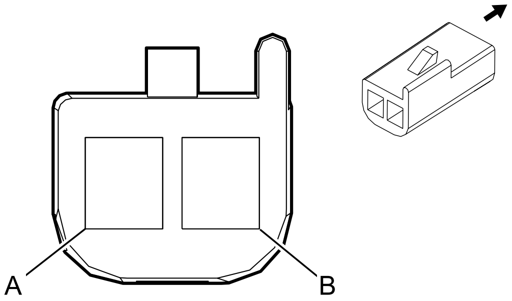
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E35R Exterior Spot Lamp - Right (7X7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD/GY	4140	Battery Positive Voltage	I	-

E36AH Dome Lamp (without SWB)



Connector Part Information

Harness Type: Rear Dome Lamp Jumper

OEM Connector: 12047662

Service Connector: 12085535

Description: 150 Metri Pack Series (BK)

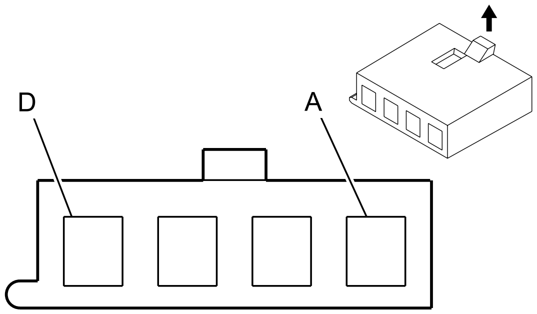
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E36AH Dome Lamp (without SWB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY	157	Interior Lamp Control	I	-
B	0.5	BK	1450	Ground	I	-

E37B Dome/Reading Lamps - 2nd Row (without U42)



Connector Part Information

Harness Type: Headliner

OEM Connector: 12092162

Service Connector: 15306021

Description: 4-Way F 150 Metri Pack Series (BK)

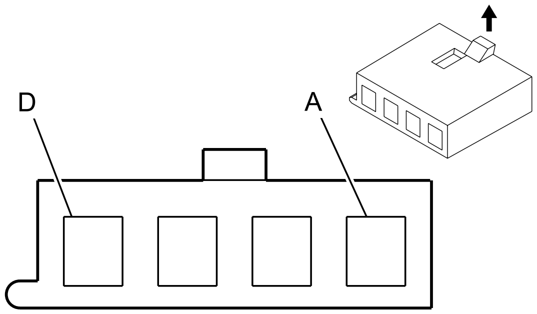
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E37B Dome/Reading Lamps - 2nd Row (without U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	-
B	0.5	BK	1050	Ground	I	-
C	0.5	GY	157	Interior Lamp Control	I	-
D	0.5	YE	6817	LED Backlight Dimming Control	I	-

E37C Dome/Reading Lamps - 3rd Row (without DNU)



Connector Part Information

Harness Type: Headliner

OEM Connector: 12092162

Service Connector: 15306021

Description: 4-Way F 150 Metri Pack Series (BK)

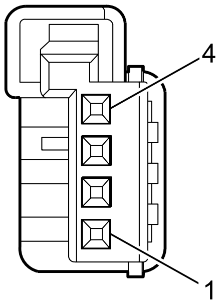
Terminal Part Information

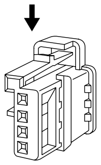
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E37C Dome/Reading Lamps - 3rd Row (without DNU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	-
B	0.5	BK	1050	Ground	I	-
C	0.5	GY	157	Interior Lamp Control	I	-
D	0.5	YE	6817	LED Backlight Dimming Control	I	-

E37EL Dome/Reading Lamps - Front Overhead Console Left





Connector Part Information

Harness Type: Overhead Console

OEM Connector: 10812166

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (GY)

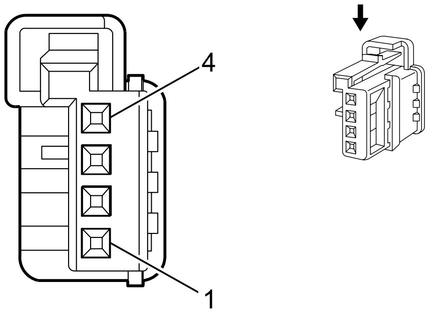
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E37EL Dome/Reading Lamps - Front Overhead Console Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	-
2	0.5	WH/BN	6815	Inadvertent Power Control	I	-
3	0.5	GY	157	Interior Lamp Control	I	-
4	0.5	BK	1050	Ground	I	-

E37ER Dome/Reading Lamps - Front Overhead Console Right



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 10812166

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (GY)

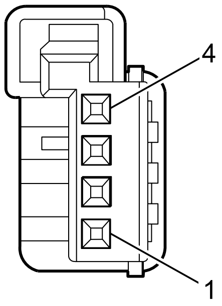
Terminal Part Information

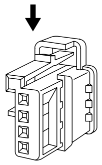
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E37ER Dome/Reading Lamps - Front Overhead Console Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	-
2	0.5	WH/BN	6815	Inadvertent Power Control	I	-
3	0.5	GY	157	Interior Lamp Control	I	-
4	0.5	BK	1050	Ground	I	-

E37H Dome/Reading Lamps - Left Roof Rail (U42)





Connector Part Information

Harness Type: Headliner

OEM Connector: 10812166

Service Connector: 19119349

Description: 4-Way F 0.64 Micro Quadlock Series (GY)

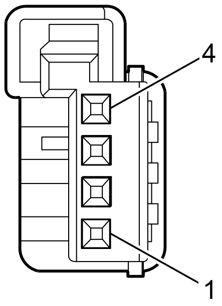
Terminal Part Information

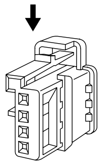
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E37H Dome/Reading Lamps - Left Roof Rail (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	6817	LED Backlight Dimming Control	I	-
2	0.5	WH/BN	6815	Inadvertent Power Control	I	-
3	0.5	GY	157	Interior Lamp Control	I	-
4	0.5	BK	1050	Ground	I	-

E37J Dome/Reading Lamps - Right Roof Rail (U42)





Connector Part Information

Harness Type: Headliner

OEM Connector: 10812166

Service Connector: 19119349

Description: 4-Way F 0.64 Micro Quadlock Series (GY)

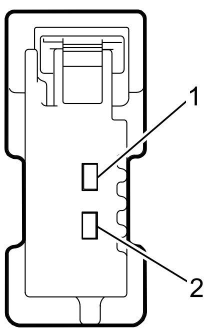
Terminal Part Information

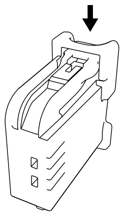
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

E37J Dome/Reading Lamps - Right Roof Rail (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	6817	LED Backlight Dimming Control	I	-
2	0.5	WH/BN	6815	Inadvertent Power Control	I	-
3	0.5	GY	157	Interior Lamp Control	I	-
4	0.5	BK	1050	Ground	I	-

E38 Flood Lamp - Center Console





Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13595207

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64, 1.5 Series (BK)

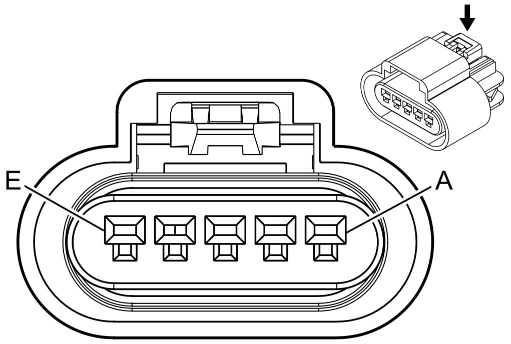
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E38 Flood Lamp - Center Console

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/L-GN	7558	LED Ambient Lighting Control 2	I	-
2	0.35	BK	1050	Ground	I	-

E42L Tail Lamp Assembly - Left (Z88)



Connector Part Information

Harness Type: Left Tail Lamp Jumper

OEM Connector: 13519051

Service Connector: 13585858

Description: 5-Way F 150 GT Series, Sealed (BK)

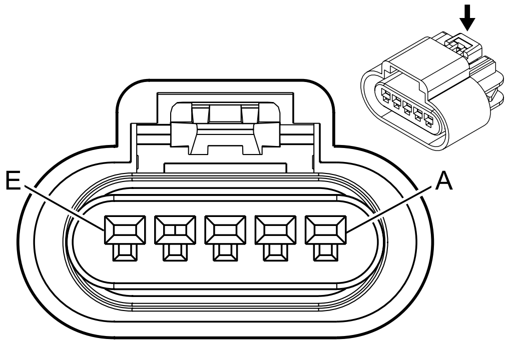
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

E42L Tail Lamp Assembly - Left (Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	D-GN	7542	Left Rear Stop Lamp Supply Voltage	II	-
B	0.5	YE	709	Left Park Lamp Supply Voltage	II	-
C	0.5	BK	1750	Ground	II	-
D	0.5	BN	18	Left Rear Stop/Turn Lamp Supply Voltage	I	-
E	0.5	D-BU	5356	Left Tail Lamp Outage Detection Signal	I	-

E42R Tail Lamp Assembly - Right (Z88)



Connector Part Information

Harness Type: Right Tail Lamp Jumper

OEM Connector: 13519051

Service Connector: 13585858

Description: 5-Way F 150 GT Series, Sealed (BK)

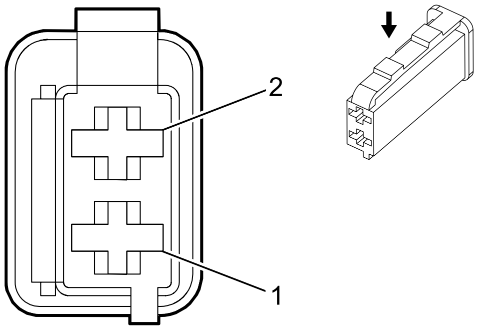
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

E42R Tail Lamp Assembly - Right (Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	D-GN	7541	Right Rear Stop Lamp Supply Voltage	II	-
B	0.5	YE	309	Right Park Lamp Supply Voltage	II	-
C	0.5	BK	2150	Ground	II	-
D	0.5	BN	19	Right Rear Stop/Turn Lamp Supply Voltage	I	-
E	0.5	D-BU	5357	Right Tail Lamp Outage Detection Signal	I	-

E55LR Flood Lamp - Left Rear Door Pocket (Z75)



Connector Part Information

Harness Type: Left Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

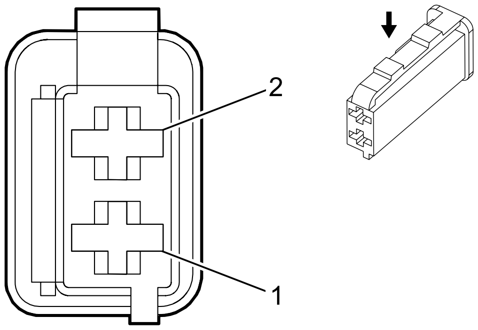
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E55LR Flood Lamp - Left Rear Door Pocket (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1150	Ground	I	-

E55RR Flood Lamp - Right Rear Door Pocket (Z75)



Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

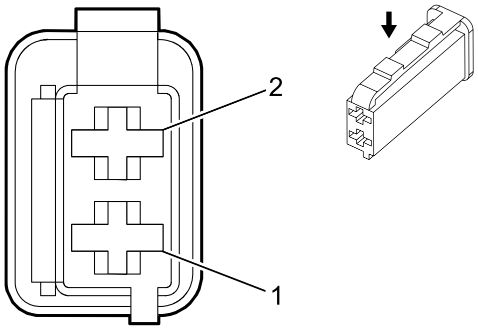
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E55RR Flood Lamp - Right Rear Door Pocket (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1250	Ground	I	-

E63D Flood Lamp - Driver Door Handle (Z75)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

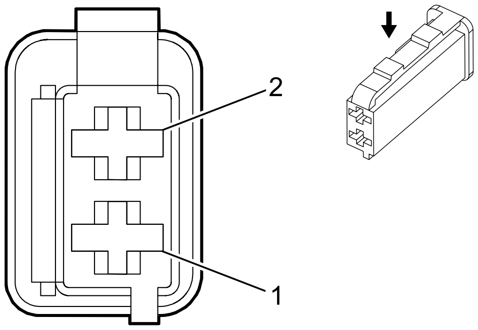
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E63D Flood Lamp - Driver Door Handle (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1150	Ground	I	-

E63P Flood Lamp - Passenger Door Handle (Z75)



Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13670097

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.6 Timer Series (BK)

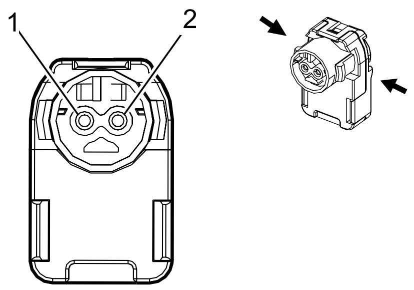
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

E63P Flood Lamp - Passenger Door Handle (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
2	0.35	BK	1250	Ground	I	-

F101 Passenger Instrument Panel Air Bag X1



Connector Part Information

Harness Type: Passenger Air Bag

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F, Sealed (L-GN with YE cover)

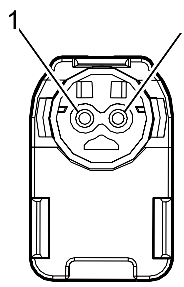
Terminal Part Information

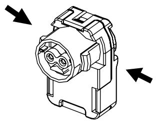
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

F101 Passenger Instrument Panel Air Bag X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	3025	Passenger IP Module Stage 1 High Control	I	-
2	0.5	OG	3024	Passenger IP Module Stage 1 Low Control	I	-

F101 Passenger Instrument Panel Air Bag X2





Connector Part Information

Harness Type: Passenger Air Bag

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F, Sealed (YE with YE cover)

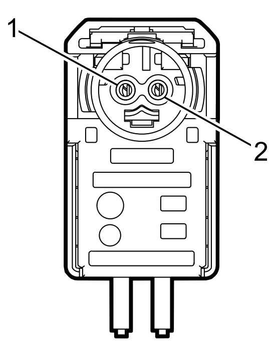
Terminal Part Information

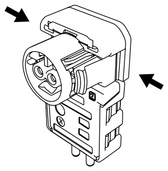
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

F101 Passenger Instrument Panel Air Bag X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	3027	Passenger IP Module Stage 2 High Control	I	-
2	0.5	PU	3026	Passenger IP Module Stage 2 Low Control	I	-

F105L Roof Rail Air Bag - Left





Connector Part Information

Harness Type: Left Roof Rail Air Bag

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F (BK with YE cover)

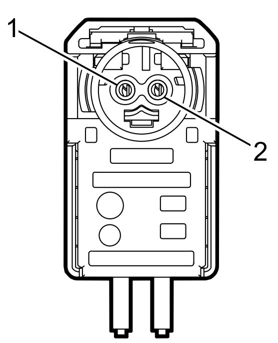
Terminal Part Information

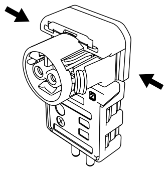
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

F105L Roof Rail Air Bag - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	OG/GN OG/TN	5019 5019	Left Front Head Curtain Module High Control	I I	SWB without SWB
2	0.5 0.5	VT/OG YE/OG	5020 5020	Left Front Head Curtain Module Low Control	I I	SWB without SWB

F105R Roof Rail Air Bag - Right





Connector Part Information

Harness Type: Right Roof Rail Air Bag

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F (BK with YE cover)

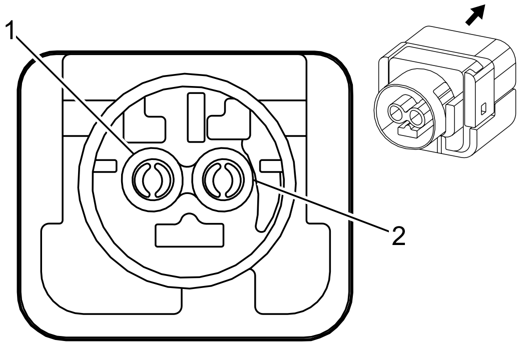
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	J-38125-22	Not Available	Not Available	Not Available	Not Available

F105R Roof Rail Air Bag - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 0.35	OG/BU OG/GN	5021 5021	Right Front Head Curtain Module High Control	I I	SWB without SWB
2	0.35 0.35	GY/OG PU/OG	5022 5022	Right Front Head Curtain Module Low Control	I I	SWB without SWB

F106D Seat Side Air Bag - Driver



Connector Part Information

Harness Type: Driver Seat Back

OEM Connector: PP10001142

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F FPB 180 1 Series (BK with YE Cover)

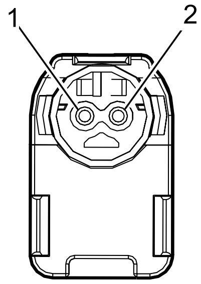
Terminal Part Information

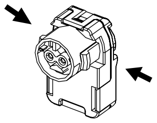
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

F106D Seat Side Air Bag - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/OG	3068	Driver Side Impact Module High Control	I	-
2	0.5	L-GN/L-GN	3069	Driver Side Impact Module Low Control	I	-

F106DA Seat Side Air Bag - Driver Inboard (AYQ)





Connector Part Information

Harness Type: Driver Seat Back

OEM Connector: PP10001722

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Series, Sealed (L-GN with YE Cover)

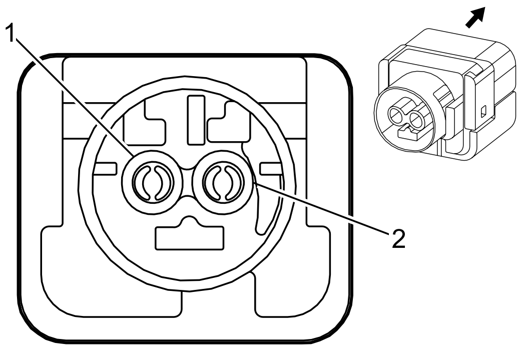
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

F106DA Seat Side Air Bag - Driver Inboard (AYQ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BN	4107	Center Side Impact Module High Control	I	-
2	0.5	VT/VT	4106	Center Side Impact Module Low Control	I	-

F106P Seat Side Air Bag - Passenger



Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: PP10001142

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F FPB 180 1 Series (BK with YE Cover)

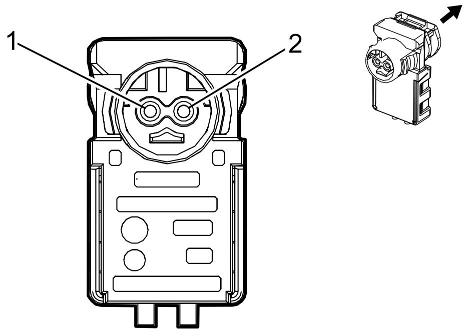
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

F106P Seat Side Air Bag - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/OG	3066	Passenger Side Impact Module High Control	I	-
2	0.5	BN/BN	3067	Passenger Side Impact Module Low Control	I	-

F107 Steering Wheel Air Bag X1



Connector Part Information

Harness Type: Steering Wheel Air Bag Coil

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F (L-GN with YE cover)

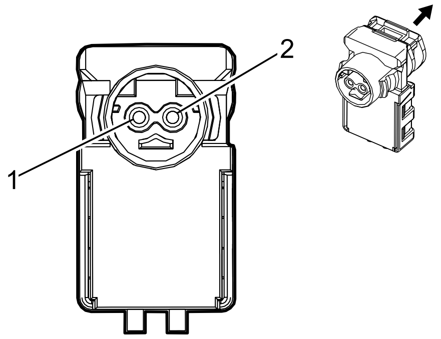
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

F107 Steering Wheel Air Bag X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN	3021	Steering Wheel Module Stage 1 High Control	I	-
2	0.35	BN	3020	Steering Wheel Module Stage 1 Low Control	I	-

F107 Steering Wheel Air Bag X2



Connector Part Information

Harness Type: Steering Wheel Air Bag Coil

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 2-Way F (YE)

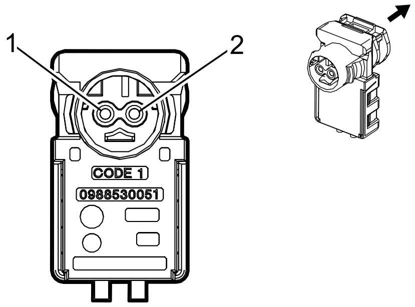
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

F107 Steering Wheel Air Bag X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	3023	Steering Wheel Module Stage 2 High Control	I	-
2	0.35	PK	3022	Steering Wheel Module Stage 2 Low Control	I	-

F112D Seat Belt Retractor Pretensioner - Driver



Connector Part Information

Harness Type: Body

OEM Connector: 13973027

Service Connector: 19301741

Description: 2-Way F AK 2 Series (BK with YE cover)

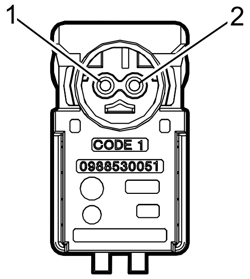
Terminal Part Information

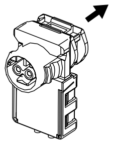
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

F112D Seat Belt Retractor Pretensioner - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	3477	Driver Seat Belt Retractor Pretensioner High Control	I	-
2	0.5	GY	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	-

F112P Seat Belt Retractor Pretensioner - Passenger X1





Connector Part Information

Harness Type: Body

OEM Connector: 13973026

Service Connector: 19301742

Description: 2-Way F AK 2 Series

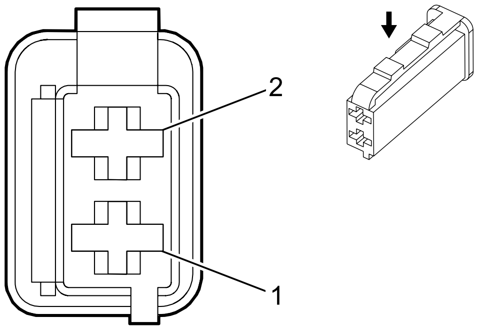
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

F112P Seat Belt Retractor Pretensioner - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	-
2	0.5	WH	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	-

F112P Seat Belt Retractor Pretensioner - Passenger X2



Connector Part Information

Harness Type: Body

OEM Connector: 13670097

Service Connector: 13580951

Description: 2-Way F 1.6 Timer Series (BK)

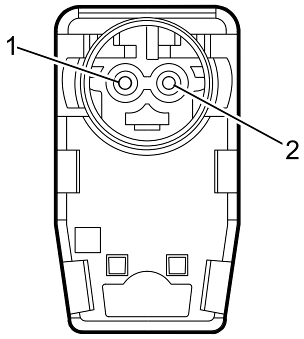
Terminal Part Information

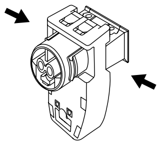
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

F112P Seat Belt Retractor Pretensioner - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU/RD	5612	Passenger Seat Belt Tension Sensor Voltage Reference	I	-
2	0.35	VT/OG	5611	Passenger Seat Belt Tension Sensor Signal	I	-

F113D Seat Belt Anchor Pretensioner - Driver





Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: PP10001721

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Series, Sealed (BK with YE Cover)

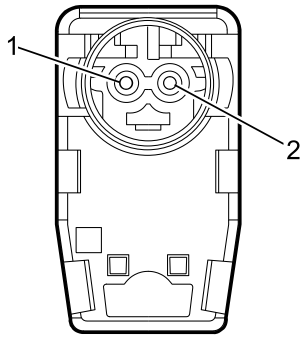
Terminal Part Information

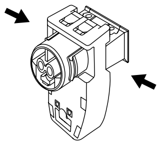
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

F113D Seat Belt Anchor Pretensioner - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	-
2	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	-

F113P Seat Belt Anchor Pretensioner - Passenger





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 31372-1000

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5, 2.8 Series (BK)

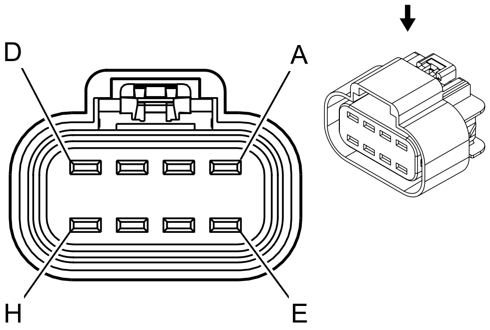
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Available	Not Available	Not Available	Not Available

F113P Seat Belt Anchor Pretensioner - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	-
2	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	-

G3 Air Suspension Compressor (Z85 or Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 15326654

Service Connector: 88986254

Description: 8-Way F 280 GT 5.8 Series, Sealed (BK)

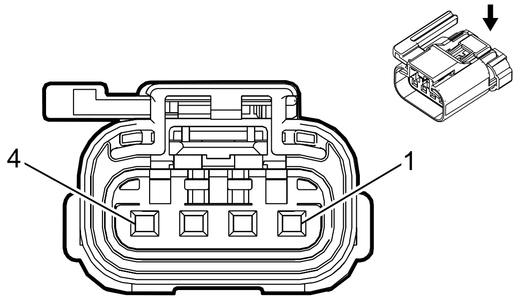
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578915	J-35616-5 (PU)	J-38125-553	15304719	19	Not Available	Not Available
II	Not Available	J-35616-4A (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available

G3 Air Suspension Compressor (Z85 or Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE/GN	6075	Real Time Damping Air Pressure Sensor Signal	I	—
B	0.75 0.75	RD/GN WH/BU	2440 3261	Battery Positive Voltage Automatic Level Control Exhaust Solenoid Supply Voltage	I I	Z85 Z95
C	0.75	WH/GN	320	Automatic Level Control Exhaust Solenoid Control	I	—
D	—	—	—	Not Occupied	I	—
E	2.5	WH/VT	2248	Real Time Damping Leveling Motor Supply Voltage	II	—
F	0.5	BK/YE	6077	Real Time Damping Air Pressure Sensor Low Reference	I	—
G	2.5	BK	1750	Ground	II	—
H	0.5	BU/RD	6076	Real Time Damping Air Pressure Sensor 5 Volt Reference	I	—

G10L Cooling Fan Motor - Left



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13949247

Service Connector: 19301718

Description: 4-Way F 2.8 APEX Series, Sealed (BK)

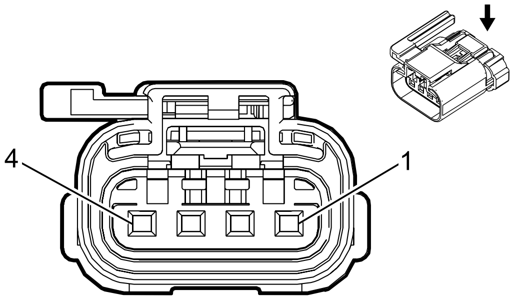
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

G10L Cooling Fan Motor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	BK	150	Ground	I	-
2	4	RD/WH	342	Battery Positive Voltage	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	-

G10R Cooling Fan Motor - Right



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13949247

Service Connector: 19301718

Description: 4-Way F 2.8 APEX Series, Sealed (BK)

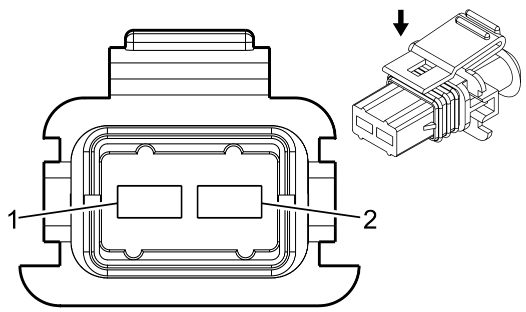
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

G10R Cooling Fan Motor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	BK	250	Ground	I	-
2	4	RD/GY	642	Battery Positive Voltage	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	-

G13 Generator X1



Connector Part Information

Harness Type: Engine

OEM Connector: 12186308

Service Connector: 13585849

Description: 2-Way F Junior Power Timer Series, Sealed (BK)

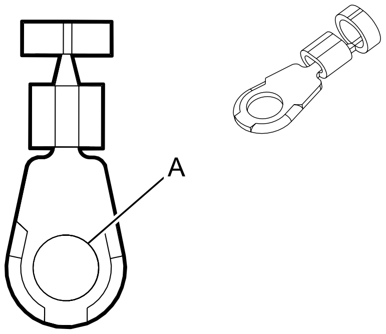
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

G13 Generator X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	-
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	-

G13 Generator X2



Connector Part Information

Harness Type: Starter - Generator

OEM Connector: 13584015

Service Connector: Service by Harness - See Part Catalog

Description: Ring Terminal

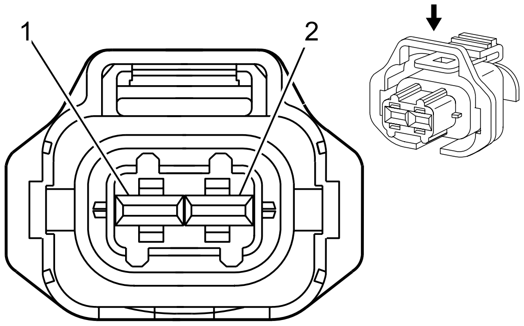
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness — See Part Catalog	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

G13 Generator X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD/YE	2	Battery Positive Voltage	I	—

G18 High Pressure Fuel Pump



Connector Part Information

Harness Type: Fuel Injector - Even

OEM Connector: 88988163

Service Connector: 88988963

Description: 2 F Kompakt 2.8 Series, Sealed (BK)

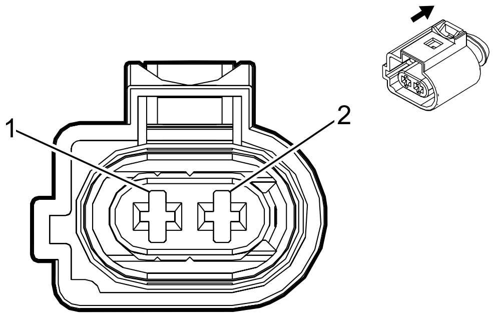
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

G18 High Pressure Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	I	-
2	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	I	-

G19 Rear Window Washer Pump



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13930731

Service Connector: 19301746

Description: 2-Way F 2.8 MCP Series, Sealed (NA)

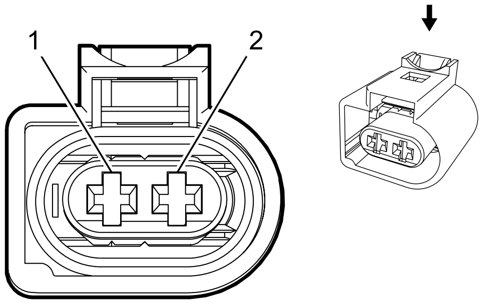
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

G19 Rear Window Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU/VT	392	Rear Window Washer Pump Control	I	-
2	0.75	BK	150	Ground	I	-

G24 Windshield Washer Pump



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 10863916

Service Connector: 13576532

Description: 2-Way F 2.8 MDK5 Series, Sealed (BK)

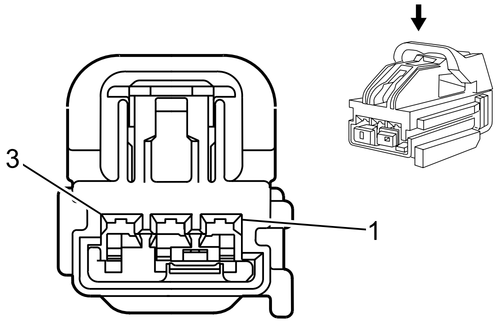
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY/VT	228	Windshield Washer Pump Control	I	-
2	0.75	BK	150	Ground	I	-

G31D Seat Lumbar/Bolster Pump - Driver (ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-3440-40

Service Connector: Service by Harness - See Part Catalog

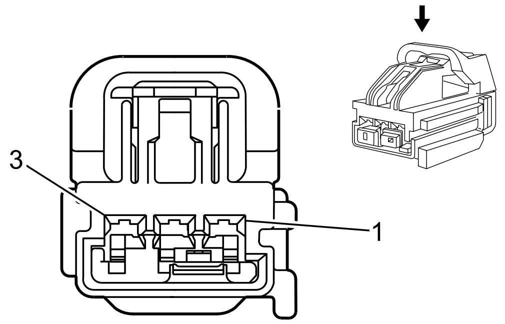
Description: 3-Way F 1.5 Kaizen Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

G31D Seat Lumbar/Bolster Pump - Driver (ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	901		I	-
2	0.5	BK	1150	Ground	I	-
3	0.5	L-GN	903		I	-



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 7283-3440-40

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 1.5 Kaizen Series (L-GY)

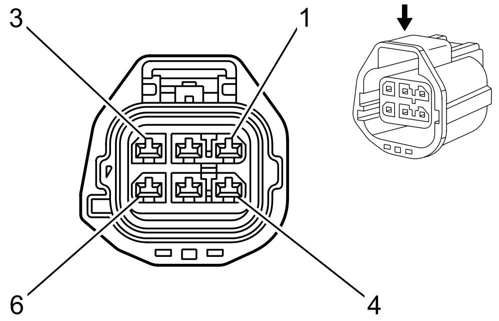
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

G31P Seat Lumbar/Bolster Pump - Passenger (ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	901		I	-
2	0.5	BK	1250	Ground	I	-
3	0.5	L-GN	903		I	-

K4 Assist Step Control Module X1 (BRS)



Connector Part Information

Harness Type: Chassis

OEM Connector: 15342659

Service Connector: 88988393

Description: 6-Way F 2.8 Series, Sealed (D-GY)

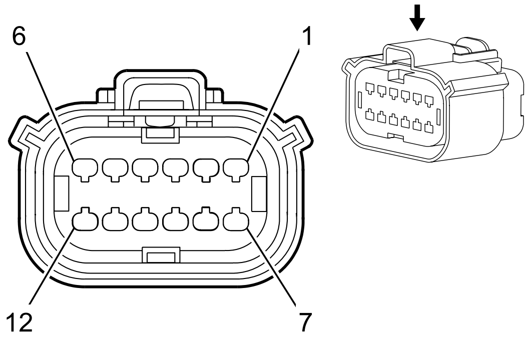
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

K4 Assist Step Control Module X1 (BRS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	L-GN	7469	Articulating Running Boards Motor Right Control Retract	I	-
2	2.5 2.5	BK BK	1350 2150	Ground Ground	I	-
3	2	WH/BN	7471	Articulating Running Boards Motor Left Control Extend	I	-
4	2	D-BU	7470	Articulating Running Boards Motor Right Control Extend	I	-
5	2.5	RD/YE	1142	Battery Positive Voltage	I	-
6	2	GY	7472	Articulating Running Boards Motor Left Control Retract	I	-

K4 Assist Step Control Module X2 (BRS)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13653762

Service Connector: 13503528

Description: 12-Way F 1.5 Series, Sealed (BK)

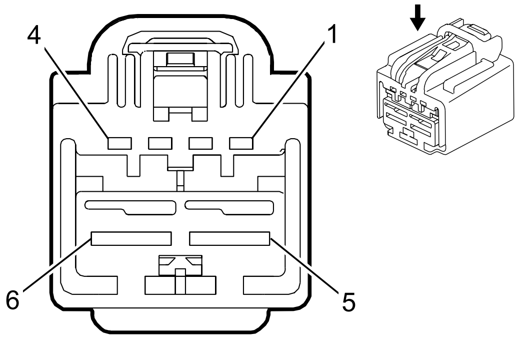
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575808	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K4 Assist Step Control Module X2 (BRS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/RD	7468	Running Boards Motor Hall Sensor Left Reference	I	-
2	0.5	L-GN/RD	7464	Running Boards Motor Hall Sensor Right Reference	I	-
3	0.5	YE	7467	Running Boards Motor Hall Sensor Left Signal	I	-
4	0.5	VT	7465	Running Boards Motor Hall Sensor Right Signal	I	-
5	0.5	YE/BN	7466	Running Boards Motor Hall Sensor Left Return	I	-
6	0.5	YE/BK	7463	Running Boards Motor Hall Sensor Right Return	I	-
7	-	-	-	Not Occupied	-	-
8	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
9	-	-	-	Not Occupied	-	-
10	0.5	BN/WH	7462	Running Boards Disable Signal	I	-
11-12	-	-	-	Not Occupied	-	-

K8A Blower Motor Control Module - Auxiliary X1



Connector Part Information

Harness Type: Auxiliary HVAC

OEM Connector: 15226104

Service Connector: 88988512

Description: 6–Way F YESC Kaizen Series (BK)

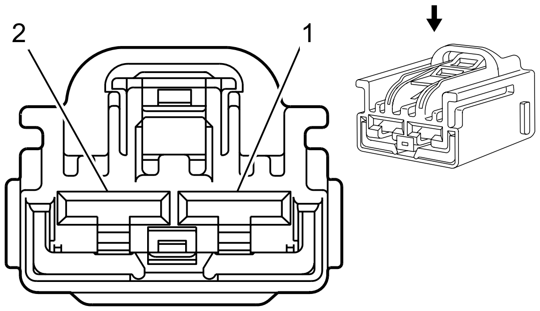
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K8A Blower Motor Control Module - Auxiliary X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	I	-
3	0.35	L-GN/BK	2211	Rear Blower Motor Speed Control	I	-
4	-	-	-	Not Occupied	I	-
5	2.5	BK	1450	Ground	II	-
6	2.5	RD/GY	1740	Battery Positive Voltage	II	-

K8A Blower Motor Control Module - Auxiliary X2



Connector Part Information

Harness Type: Auxiliary HVAC

OEM Connector: 15226103

Service Connector: 88988507

Description: 2 F 6.3 Series (L-GY)

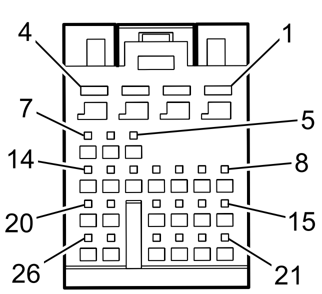
Terminal Part Information

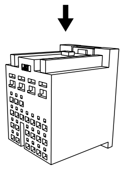
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K8A Blower Motor Control Module - Auxiliary X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5 2.5	GY/BN RD/GY	101 101	Blower Motor Supply Voltage	I I	SWB without SWB
2	2.5 2.5	D-BU/BK OG	5988 5988	Rear Blower Motor Return	I I	SWB without SWB

K9 Body Control Module X1





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13943345

Service Connector: 13582966

Description: 26-Way F 0.64, 2.8 Series (NA)

Terminal Part Information

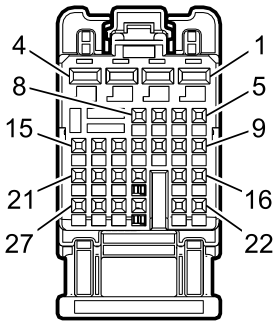
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327199	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13582297	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13575871	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	13588907	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

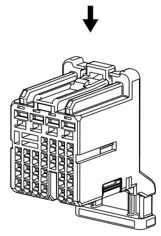
K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1850	Ground	I	-
2	0.75	RD/D-BU	2540	Battery Positive Voltage	I	-
3	1	RD/GY	2140	Battery Positive Voltage	III	-
4	0.5	RD/BN	2240	Battery Positive Voltage	I	-
5	0.5	WH	6816	Indicator Dimming Control	II	-
6	0.35	BN/WH	4046	Glove Box Door Release Relay Control	II	Z75
7	0.35	BK/YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	II	-
8	0.35	BN/BK	5720	Ignition Mode Switch Accessory LED Signal	II	BTM
9	-	-	-	Not Occupied	-	-
10	0.5	D-BU/VT	1134	Park Brake Switch Signal	II	-
11	0.35	L-GN/BN	306	Headlamp Switch Headlamps Off Signal Control	II	-
12	0.35	D-BU/GY	187	Rear Fog Lamp Switch Signal	II	T79

13	0.35	D-BU/RD	1688	5 Volt Reference	II	-
14	0.35	GY/L-GN	328	Interior Lamp Defeat Switch Signal	II	-
15	0.35 0.75	D-BU/GY D-BU/L-GN	192 6841	Front Fog Lamp Switch Signal Rear Lamp Flasher Signal	II	T3U 6J7
16	0.35	WH/VT	103	Headlamp Switch On Signal	II	-
17	-	-	-	Not Occupied	-	-
18	0.35	D-BU/VT	5904	Steering Column Lock Status Signal	II	BTM
19	0.35	BK/L-GN	552	Sensor Low Reference	II	-
20	0.35	D-BU/BK	5719	Ignition Mode Switch Start LED Signal	II	BTM
21	0.35	GY	728	Security Indicator Control	II	-
22	0.35	L-GN/GY	13	Headlamp Switch Park Lamp Signal	II	-
23	0.5	VT/L-GN	7558	LED Ambient Lighting Control 2	II	-
24	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
25	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
26	0.35	D-BU/WH	3275	Remote Function Actuator Receive Signal	II	-

K9 Body Control Module X2





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13943361

Service Connector: 13576637

Description: 27-Way F 0.64, 2.8 Series (L-BU)

Terminal Part Information

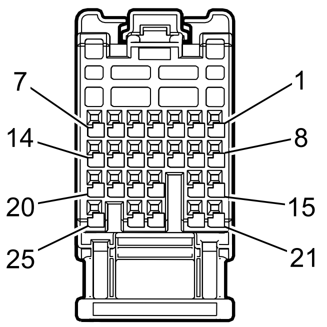
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327199	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13582297	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

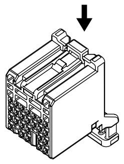
K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	2740	Battery Positive Voltage	I	-
2	0.75	BK	1850	Ground	I	-
3	0.5	RD/BN	2940	Battery Positive Voltage	I	-
4	0.75	RD/VT	4040	Battery Positive Voltage	I	-
5	0.5	GY	157	Interior Lamp Control	II	-
6	0.35	GY	5697	Child Lockout Indicator	II	-
7	0.35	WH/L-GN	526	Stop Lamp Switch Signal	II	-
8	0.5	YE	6817	LED Backlight Dimming Control	II	-
9	0.35	YE/GY	44	Instrument Panel Lamp Dimmer Switch Signal	II	-
10	0.35	WH/D-BU	278	Ambient Light Sensor Signal	II	-
11	-	-	-	Not Occupied	-	-
12	0.35	BN/D-BU	391	Rear Window Wiper Switch Signal	II	-
13	0.35	GY/RD	598	5 Volt Reference	II	-
14	0.35	D-BU/VT	1788	Traction Control Switch Signal (1)	II	-

15	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	II	-
16	0.35	GY	3273	Remote Function Actuator Return	II	-
17	0.35	D-BU/L-GN	5723	Ignition Mode Switch Mode Voltage	II	BTM
18	0.35	L-GN/WH	4047	Glove Box Door Release Signal	II	Z75
19	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	II	-
20	0.5	WH/D-BU	3691	Trailer Brake Apply Signal	II	-
21	0.5	L-GN/GY	6135	Linear Interconnect Network Bus 4	II	-
22-24	-	-	-	Not Occupied	-	-
25	0.35	GY/WH	3272	Remote Function Actuator Supply Voltage	II	-
26	0.35	L-GN/WH	111	Hazard Switch Signal	II	-
27	0.35	YE/L-GN	3274	Remote Function Actuator Transmit Signal	II	-

K9 Body Control Module X3





Connector Part Information

Harness Type: Steering Column

OEM Connector: HATTPB-25-3C-LM

Service Connector: Service by Harness - See Part Catalog

Description: 25–Way, F 0.64 Series (GN)

Terminal Part Information

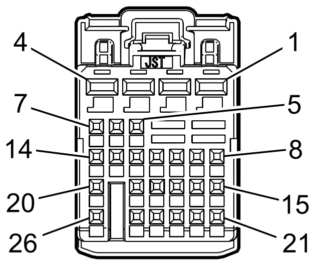
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327195	J-35616-64B (L-BU)	J-38125–12A	SNAC3–A021T-M0.64	20	J	J
II	13579954	J-35616-64B (L-BU)	J-38125–12A	Not Available	Not Available	Not Available	Not Available

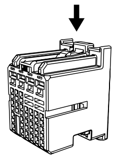
K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	3277	Vehicle Anti-Theft System Immobilizer Return	I	-
2	0.5	GN/VT	7533	Linear Interconnect Network Bus 11	I	-
3	0.5	GY/BK	3276	Vehicle Anti-Theft System Immobilizer Supply Voltage	I	-
4	0.5	WH/RD	1444	12 Volt Reference	I	K59, KSG or UEU
5	0.5	VT/YE	4	Accessory Voltage	II	-
6	0.5	VT/BK	3	Run/Crank Ignition 1 Voltage	II	-
7-8	-	-	-	Not Occupied	-	-
9	0.5	BN/GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	-
10	0.5	BK/GY	6009	Low Reference	II	-
11	0.5	WH	524	Headlamp Dimmer Switch High Beam Signal	I	-
12	0.5	WH/GN	663	Hazard Switch Left Turn Signal	II	-
13	0.5	YE/BU	1714	Windshield Wiper Switch Low Signal	I	-
14	0.5	BU/GY	553	Shift Select Switch Performance Signal	I	-
15	0.5	WH/VT	1020	Off/Run/Crank Voltage	II	without BTM

16	0.5	GY/GN	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	I	K59
17	0.5	YE/BN	307	Headlamp Switch Flash To Pass Signal	I	-
18	0.5	GN/WH	3287	Horn Switch Signal	II	-
19	0.5	OG	7527	Linear Interconnect Network Bus 5	I	KA1 or KB6
20	0.5	GY	1715	Windshield Wiper Switch High Signal	II	-
21	0.5	VT/YE	5526	Tap Up/Tap Down Switch Signal	I	-
22	0.5	WH/BK	1073	Ignition Key Resistor Signal	II	without BTM
23	0.5	GY/YE	7595	Auto Wiper On Signal	I	-
24	0.5	VT/BU	664	Hazard Switch Right Turn Signal	II	-
25	0.5	WH/BK	94	Windshield Washer Switch Signal	I	-

K9 Body Control Module X4





Connector Part Information

Harness Type: Body

OEM Connector: 13962485

Service Connector: 13587579

Description: 26-Way F 0.64, 2.8 Series (BK)

Terminal Part Information

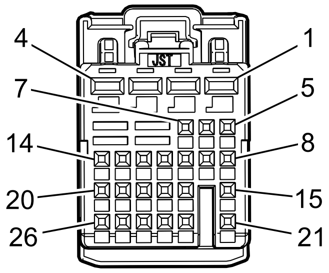
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327199	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13582297	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13588907	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

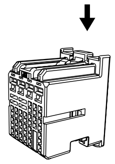
K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	YE GY/D-BU	712 7538	Left Headlamp Low Beam Supply Voltage Left Front DRL Supply Voltage	I	without AVF AVF
2	0.75 0.75	YE D-BU/BN	312 7539	Right Headlamp Low Beam Supply Voltage Right Front DRL Supply Voltage	I	without AVF AVF
3	0.75	L-GN/VT	1315	Right Front Turn Signal Lamp Supply Voltage	I	-
4	0.5	BN/L-GN	19	Right Rear Stop/Turn Lamp Supply Voltage	I	-
5	0.75	WH/YE	7541	Right Rear Stop Lamp Supply Voltage	III	-
6	0.75	GY/YE	7542	Left Rear Stop Lamp Supply Voltage	III	-
7	0.75	GY/D-BU	7538	Left Front DRL Supply Voltage	III	X88, Z88, and Z75 with AVF
8	0.35	GY/YE	6188	Lift Glass/Trunk Motor Release Control	II	-
9-10	-	-	-	Not Occupied	-	-
11	0.5	VT/WH	5065	Stop Lamp Relay Coil Supply Voltage	II	-
12	0.35	GY/VT	755	RAP Relay Coil Control	II	without BTM
13	0.5	L-GN/YE	6846	Rear License Lamp Supply Voltage	II	-

14	0.35	BN/GY	2268	Windshield Washer Relay Control	II	-
15	0.35	L-GN/VT	5199	Run/Crank Relay Coil Control	II	-
16	0.35	GY	91	Windshield Wiper Motor Relay Coil Supply Voltage	II	-
17	0.5	BN/L-GN	196	Windshield Wiper Motor Park Switch Signal	II	-
18	0.35	WH/YE	5075	Current Sensor Signal	II	-
19	0.35	D-BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	II	BRS or JHD
20	0.75	RD/YE	2340	Battery Positive Voltage	III	-
21	0.35	D-BU/VT	5076	Current Sensor Supply Voltage	II	-
22	0.35	VT/YE	5985	Accessory Wakeup Serial Data	II	-
23	0.5	WH/D-BU	5986	Serial Data Communication Enable	II	-
24	0.5	BN/L-GN	109	Hood Ajar Switch Signal	II	-
25	0.5 0.35	L-GN/YE YE/D-BU	2081 4086	Exhaust Brake Switch Control Pushbutton Start Challenge Active Signal	II	BTM BTM
26	0.75	BK/WH	451	Signal Ground	III	-

K9 Body Control Module X5





Connector Part Information

Harness Type: Body

OEM Connector: 13962299

Service Connector: 13587577

Description: 26-Way F 0.64, 2.8 Series (BN)

Terminal Part Information

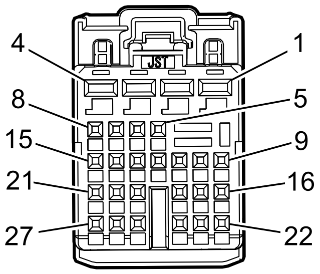
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327199	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13582297	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13588907	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

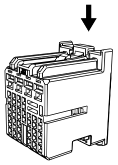
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/D-BU	18	Left Rear Stop/Turn Lamp Supply Voltage	I	-
2	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage	I	-
3	0.75	RD/L-GN	5140	Battery Positive Voltage	I	-
4	0.75	RD/WH	3440	Battery Positive Voltage	I	-
5	0.35	YE/VT	317	Fog Lamp Relay Coil Supply Voltage	II	T79
6	0.35	BK/VT	5077	Current Sensor Low Reference	II	-
7	0.75	D-BU/BN	7539	Right Front DRL Supply Voltage	III	X88, Z88 and Z75 with AVF
8	0.35	D-BU/WH	5186	Left Trailer Turn Signal Lamp	II	-
9	0.35	L-GN/WH	2270	Rear Window Washer Relay Control	II	-
10	0.5 0.5	BN/WH BN	1317 1317	Fog Lamp Relay Control Fog Lamp Relay Control	II	T3U T3U
11	0.35	L-GN/BN	5706	Endgate Latch Relay Supply Voltage	II	TB4
12	0.35	WH/D-BU	6311	Cruise/ETC/TCC Brake Signal	II	-

13	0.35	BN/YE	1970	Headlamp Low Beam Relay Control	II	T4F and Z75 without AVF
14	0.5	VT/BN	300	Run Ignition 3 Voltage	II	5W4, 9C1, KI4, KI5, NP0 or NQH
15	-	-	-	Not Occupied	-	-
16	0.35	VT/YE	3267	Child Security Lock Relay Control	II	-
17	0.35	YE/GY	5187	Right Trailer Turn Signal Lamp	II	-
18	0.35	BN/VT	1969	Headlamp High Beam Relay Control	II	-
19	0.35	BN/WH	28	Horn Relay Control	II	-
20	0.35	YE	5704	Endgate Latch Relay Coil Control	II	TB4
21	-	-	-	Not Occupied	-	-
22	0.35	D-BU	45	Park Lamp Relay Control	II	-
23	0.35	YE	6812	Out of Park Signal	II	5W4, 9C1, ATN, ATT, or JF4 without A45
24	0.35	WH/VT	860	Front Windshield Wiper Switch High Signal	II	-
25	-	-	-	Not Occupied	-	-
26	0.35	D-BU/BN	38	Backup Lamp Relay Control	II	-

K9 Body Control Module X6





Connector Part Information

Harness Type: Body

OEM Connector: 13962300

Service Connector: 13587576

Description: 27-Way F 0.64, 2.8 Series (L-PU)

Terminal Part Information

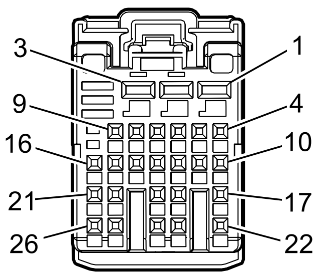
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575871	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13582297	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

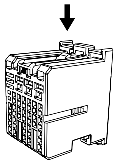
K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/WH	195	Door Lock Control	I	-
2	1.5	GY/L-GN	3271	Door Lock Control (2)	I	-
3	1.5	BK	1850	Ground	I	-
4	1.5	BN/YE	294	Door Lock Actuator Unlock Control	I	-
5	0.35	VT/GY	1303	Lift Gate Ajar Switch Signal (1)	II	-
6	0.5	WH/D-BU	3203	Right Headlamp Bulb Outage Signal	II	Z88 or Z75 without AVF
7	0.5	YE/WH	58	Right Cornering Lamp Supply Voltage	II	Z75
8	0.35	VT/WH	5908	Passenger Seat Vent Motor Control (1)	II	KB6
9	0.5	L-GN/D-BU	6133	Linear Interconnect Network Bus 2	II	KA1, KA6 or UTT
10	0.5 0.5	L-GN/YE L-GN/YE	6134 6134	Linear Interconnect Network Bus 3 Linear Interconnect Network Bus 3	II	-
11	-	-	-	Not Occupied	-	-
12	0.5	YE/BK	5356	Left Tail Lamp Outage Detection Signal	II	Z88 or Z75
13	0.5	VT/D-BU	7598	Glass Breakage Sensor Signal 2	III	UTV

13	0.5	VT/D-BU	7598	Glass Breakage Sensor Signal 2	III	UTV
14	-	-	-	Not Occupied	-	-
15	0.35	GY/L-GN	6190	Lift Glass/Trunk Exterior Release Signal	II	-
16	0.5	L-GN/BN	6132	Linear Interconnect Network Bus 1	II	-
17	0.35	L-GN/VT	5906	Driver Seat Vent Motor Control (1)	II	KB6
18-20	-	-	-	Not Occupied	-	-
21	0.5	D-BU/VT	3204	Left Headlamp Bulb Outage Signal	II	Z88 or Z75 without AVF
22	0.5	VT/YE	5357	Right Tail Lamp Outage Detection Signal	II	Z88 or Z75
23	-	-	-	Not Occupied	-	-
24	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
25	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
26	0.5	BN/WH	1429	Standing Lamp Relay Control	II	-
27	0.35	WH/VT	4108	Driver Mode Switch Signal	II	Z75

K9 Body Control Module X7





Connector Part Information

Harness Type: Body

OEM Connector: 13962301

Service Connector: 13587578

Description: 26-Way F 0.64, 2.8 Series (L-GY)

Terminal Part Information

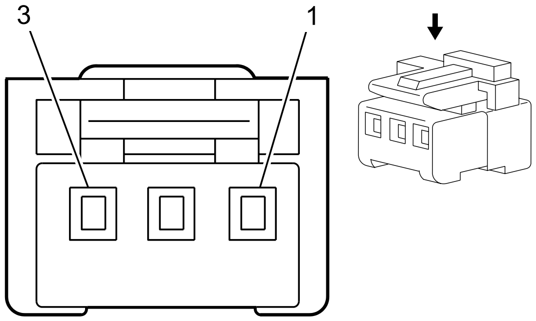
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327199	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13582297	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	WH/BN	6815	Inadvertent Power Control	I	-
4-5	-	-	-	Not Occupied	-	-
6	0.5	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	II	-
7	0.5	YE/GY	57	Left Cornering Lamp Supply Voltage	II	Z75
8	0.5	GY/L-GN	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	II	BRS, DL3, DR4 or HD7
9	0.5	YE	6817	LED Backlight Dimming Control	II	-
10	0.35	D-BU/BN	7547	Security Lock Relay Control	II	UTT
11	-	-	-	Not Occupied	-	-
12	0.35	BN/WH	3269	Child Security Lock Motor Status Signal Left Rear	II	-
13	0.35	L-GN/WH	1932	Shift Select Switch Park Signal	II	BTM or JF4
14	0.35	YE/D-BU	5797	Rear Closure Handle Switch Open Signal	II	TB4
15	0.35	YE/BN	3265	Child Security Lock Switch Signal	II	-

16	0.5	WH/D-BU	3691	Trailer Brake Apply Signal	II	-
17	-	-	-	Not Occupied	-	-
18	0.35	GY/BK	3268	Child Security Lock Motor Status Signal Right Rear	II	-
19	0.35	GY	156	Courtesy Lamp Switch Signal	II	-
20	-	-	-	Not Occupied	-	-
21	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	II	-
22	0.35	WH/YE	7557	LED Ambient Lighting Control 1	II	-
23	0.5	L-GN	5060	Low Speed GMLAN Serial Data	II	-
24	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	II	-
25	0.35	L-GN	4512	Wireless Charging System Charge Indicator Control	II	K4C
26	-	-	-	Not Occupied	-	-

K13 DVD Control Module X1 (AYE)



Connector Part Information

Harness Type: Accessory Power Harness

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 3-Way F (WH)

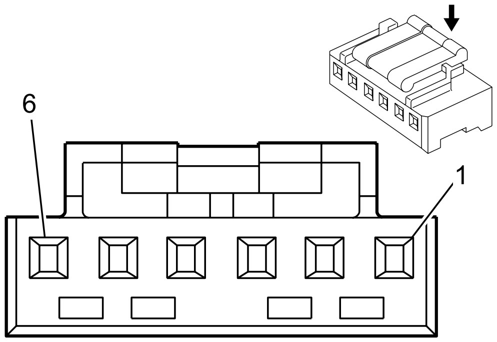
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K13 DVD Control Module X1 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Ground	I	-
2	-	-	-	Not Occupied	-	-
3	-	PU	-	Accessory Voltage	I	-

K13 DVD Control Module X2 (AYE)



Connector Part Information

Harness Type: Accessory Signal Harness 3A

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (RD)

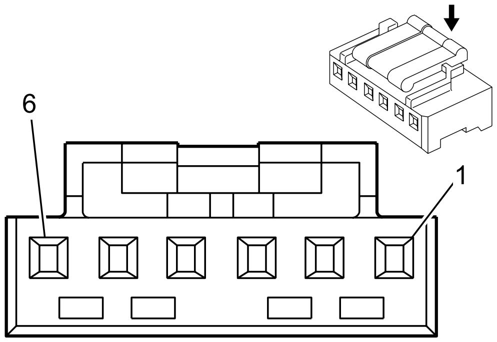
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K13 DVD Control Module X2 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common B (-)	I	-
2	-	YE	-	DVD Video Signal B (+)	I	-
3	-	RD	-	Right Audio Signal B (+)	I	-
4	-	WH	-	Left Audio Signal B (+)	I	-
5	-	BK	-	Ground	I	-
6	-	RD	-	Ignition Voltage	I	-

K13 DVD Control Module X3 (AYE)



Connector Part Information

Harness Type: Accessory Signal Harness 3A

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (WH)

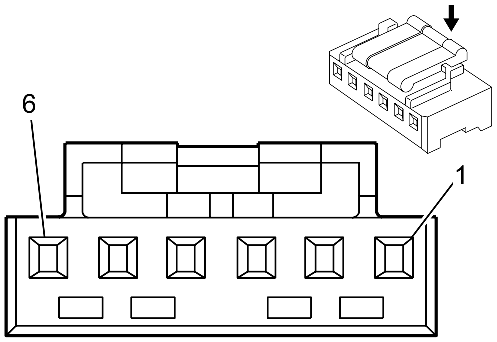
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K13 DVD Control Module X3 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common A (-)	I	-
2	-	YE	-	DVD Video Signal A (+)	I	-
3	-	RD	-	Right Audio Signal A (+)	I	-
4	-	WH	-	Left Audio Signal A (+)	I	-
5	-	BK	-	I2C Clock Signal	I	-
6	-	RD	-	I2C Data	I	-

K13 DVD Control Module X4 (AYE)



Connector Part Information

Harness Type: Accessory Signal Harness 3B

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

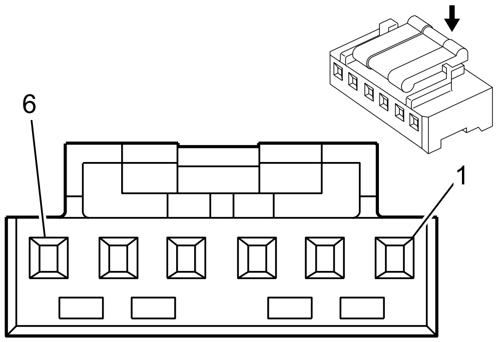
Description: 6-Way F (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K13 DVD Control Module X4 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common A (-)	I	-
2	-	YE	-	DVD Video Signal A (+)	I	-
3	-	RD	-	Right Audio Signal A (+)	I	-
4	-	WH	-	Left Audio Signal A (+)	I	-
5	-	BK	-	Ground	I	-
6	-	RD	-	Ignition Voltage	I	-



Connector Part Information

Harness Type: Accessory Signal Harness 3B

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BU)

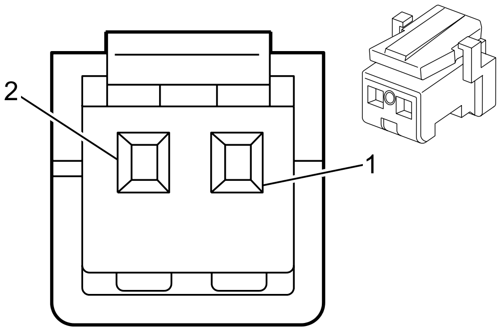
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K13 DVD Control Module X5 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Audio/Video Common B (-)	I	-
2	-	YE	-	DVD Video Signal B (+)	I	-
3	-	RD	-	Right Audio Signal B (+)	I	-
4	-	WH	-	Left Audio Signal B (+)	I	-
5	-	BK	-	I2C Clock Signal	I	-
6	-	RD	-	I2C Data	I	-

K13 DVD Control Module X6 (AYE)



Connector Part Information

Harness Type: Accessory Antenna

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

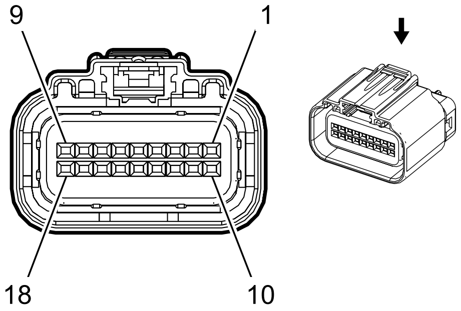
Description: 2-Way F (WH)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K13 DVD Control Module X6 (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	BK	-	Antenna Signal	I	-
2	-	BK	-	Antenna Signal	I	-



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13798447

Service Connector: 19301815

Description: 18-Way F 0.64 GET Series, Sealed (BK)

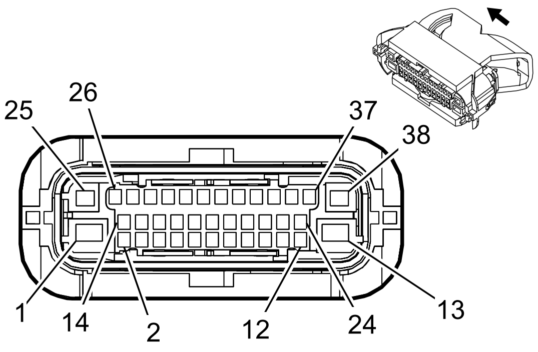
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579977	J-35616-64B (L-BU)	J-38125-553	Not Available	Not Available	Not Available	Not Available

K14 Distance Sensing Cruise Control Module (K59)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/L-GN	3140	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.75	BK	250	Ground	I	-
4	-	-	-	Not Occupied	-	-
5	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
6	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
7	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
8	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
9	-	-	-	Not Occupied	-	-
10	0.5	WH/D-BU	5986	Serial Data Communication Enable	I	-
11-18	-	-	-	Not Occupied	-	-

K17 Electronic Brake Control Module



Connector Part Information

Harness Type: Chassis

OEM Connector: 13655518

Service Connector: 19303771

Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

Terminal Part Information

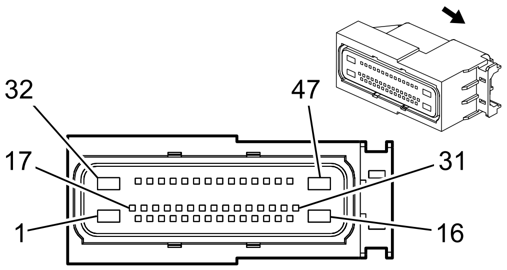
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119560	J-35616-40 (BU)	J-38125-556	1241408-1	28	B	G
II	19329827	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19329826	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	13575368	J-35616-35 (VT)	J-38125-557	1-968857-3	7	C	1

K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/YE	442	Battery Positive Voltage	I	-
2	0.5	BK/BN	6045	Steering Angle Sensor Low Reference	III	-
3	0.5	GY/YE	7128	Wheel Speed Sensor Supply Voltage Right Rear	II	-
4	0.5	VT	882	Wheel Speed Sensor Signal Right Rear	II	-
5	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	II	-
6	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	II	-
7	-	-	-	Not Occupied	-	-
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
9	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
10	0.5	GY/BN	7065	Wheel Speed Sensor Supply Voltage Right Front	II	-
11	0.5	YE	872	Wheel Speed Sensor Signal Right Front	II	-
12	-	-	-	Not Occupied	-	-

13	5	BK	2150	Ground	I	-
14-16	-	-	-	Not Occupied	-	-
17	0.5	L-GN/BN	2087	Combined Vehicle Inertial Sensor Supply Voltage	III	-
18	0.5	L-GN/GY	333	Brake Fluid Level Sensor Signal	II	-
19	-	-	-	Not Occupied	-	-
20	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
21	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
22-23	-	-	-	Not Occupied	-	-
24	0.5	BK/YE	6032	Brake Vacuum Sensor Low Reference	II	-
25	2.5	RD/VT	1640	Battery Positive Voltage	IV	-
26-27	-	-	-	Not Occupied	-	-
28	0.5	WH/D-BU	5986	Serial Data Communication Enable	II	-
29	0.5	GY/BK	7127	Wheel Speed Sensor Supply Voltage Left Rear	II	-
30	0.5	D-BU	884	Wheel Speed Sensor Signal Left Rear	II	-
31	-	-	-	Not Occupied	-	-
32	0.5	YE/RD	6031	Brake Vacuum Sensor 5 Volt Reference	II	-
33	0.5	L-GN/GY	817	Vehicle Speed Signal	II	-
34	0.5	YE/VT	6030	Brake Vacuum Sensor Signal	II	-
35	0.5	GY/WH	7064	Wheel Speed Sensor Supply Voltage Left Front	II	-
36	0.5	GY	830	Wheel Speed Sensor Signal Left Front	II	-
37	-	-	-	Not Occupied	-	-
38	2.5	BK	2150	Ground	IV	-

K19 Suspension Control Module (Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 15491307

Service Connector: 89047377

Description: 47-Way F 0.64, 6.3 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13582340	J-35616-64B (L-BU)	J-38125-215A	SAITS-A03T-M064	14	9	9
II	13582251	J-35616-42 (RD)	J-38125-553	15476168	5	Not Available	Not Available
III	13582321	J-35616-64B (L-BU)	J-38125-215A	SAITS-A03T-M064	14	9	9
IV	13579754	J-35616-42 (RD)	J-38125-553	15476168	5	F	3
V	13579755	J-35616-42 (RD)	J-38125-553	15476168	5	F	3
VI	13579754	J-35616-42 (RD)	J-38125-553	Not Available	Not Available	Not Available	Not Available
VII	13582251	J-35616-42 (RD)	J-38125-553	Not Available	Not Available	Not Available	Not Available

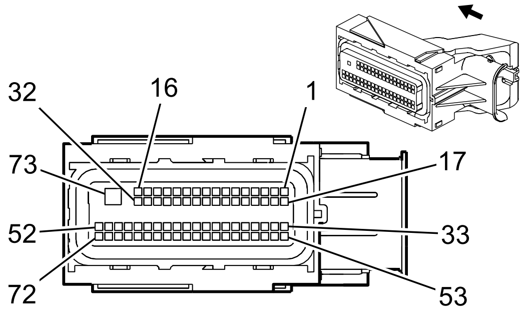
K19 Suspension Control Module (Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	BK/L-GN	1209	Left Rear Strut Position Sensor Low Reference	I	-
3	0.5	YE/WH	1213	Right Front Strut Position Sensor Signal	I	-
4	0.5	BK/YE	6077	Real Time Damping Air Pressuer Sensor Low Reference	I	-
5	0.5	BK/YE	1215	Right Rear Strut Position Sensor Low Reference	I	-
6	0.5	BN/WH	1207	Left Front Strut Position Sensor Signal	I	-
7	0.5	YE/L-GN	6075	Real Time Damping Air Pressure Sensor Signal	I	-
8-11	-	-	-	Not Occupied	-	-
12	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-

13	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
14	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
15	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
16	0.5	WH/D-BU	5986	Serial Data Communication Enable	VII	-
17	0.5	L-GN/WH	1210	Left Rear Strut Position Sensor Signal	I	-
18	0.5	BK/GY	1212	Right Front Strut Position Sensor Low Reference	I	-
19	-	-	-	Not Occupied	-	-
20	0.5	L-GN/GY	1216	Right Rear Strut Position Sensor Signal	I	-
21	0.5	BK/D-BU	1206	Left Front Strut Position Sensor Low Reference	I	-
22	0.75	WH/L-GN	320	Automatic Level Control Exhaust Solenoid Control	III	-
23	0.5	D-BU/RD	6076	Real Time Damping Air Pressure Sensor 5 Volt Reference	I	-
24	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
25	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
26	0.5	VT/D-BU	5956	Leveling Compressor Relay Coil Supply Voltage	I	-
27	0.75	BN	1009	Right Front Strut Motor Decrease Damping Control	III	-
28	0.75	WH/BK	1006	Right Front Strut Motor Increase Damping Control	III	-
29	-	-	-	Not Occupied	-	-
30	0.75	WH/L-GN	1005	Left Front Strut Motor Decrease Damping Control	III	-
31	0.75	WH/GY	1448	Left Front Strut Motor Increase Damping	III	-
32	3	RD/L-GN	2440	Battery Positive Voltage	IV	-
33	0.5	YE/RD	1208	Left Rear Strut Position Sensor Voltage Reference	I	-
34	0.5	BN/RD	1211	Right Front Strut Position Sensor Voltage Reference	I	-
35	0.5	L-GN/RD	1214	Right Rear Strut Position Sensor Voltage Reference	I	-
36	0.5	D-BU/RD	1205	Left Front Strut Position Sensor Voltage Reference	I	-
37-38	-	-	-	Not Occupied	-	-
39	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
40	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
41	0.75	WH/D-BU	3261	Automatic Level Control Exhaust Solenoid Supply Voltage	III	-
42	0.75	WH/BK	1013	Left Rear Strut Motor Decrease Damping Control	III	-
43	0.75	BN/VT	1010	Left Rear Strut Motor Increase Damping Control	III	-
44	-	-	-	Not Occupied	-	-

45	0.75	VT	1017	Right Rear Strut Motor Decrease Damping	III	-
46	0.75	YE	1014	Right Rear Strut Motor Increase Damping	III	-
47	4	BK	1750	Ground	V	-

K20 Engine Control Module X1



Connector Part Information

Harness Type: Engine

OEM Connector: 13820453

Service Connector: 19260919

Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

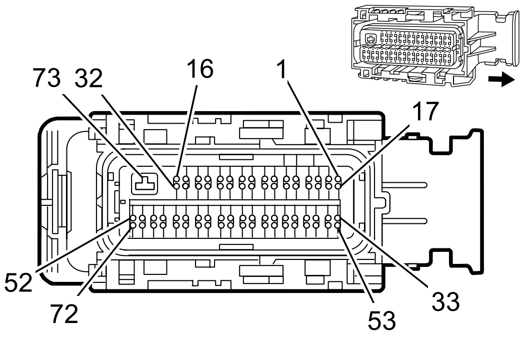
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (L-BU)	J-38125-12A	33467-0003	23	J	J
II	13581359	J-35616-35 (VT)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K20 Engine Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	D-BU/WH	7446	Fuel Line Pressure Sensor Signal	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	-
5	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	-
6	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	I	-
7	-	-	-	Not Occupied	-	-
8	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	-
9	0.5	D-BU/WH	890	Fuel Tank Pressure Sensor Signal	I	-
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5 Volt Reference	I	-
11-12	-	-	-	Not Occupied	-	-
13	0.5	D-BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	-
14	0.5	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference (1)	I	-
15	0.5	YE/WH	1161	Accelerator Pedal Position Signal (1)	I	-

16-20	-	-	-	Not Occupied	-	-
21	0.5	BN/RD	2700	A/C Pressure Sensor 5 Volt Reference	I	-
22	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	-
23	-	-	-	Not Occupied	-	-
24	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	-
25	0.5	D-BU/VT	1589	Primary Fuel Level Sensor Signal	I	-
26	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	I	-
27-29	-	-	-	Not Occupied	-	-
30	0.5	BK/D-BU	1271	Accelerator Pedal Position Low Reference (1)	I	-
31	-	-	-	Not Occupied	-	-
32	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	-
33	0.5	BN/RD	1274	Accelerator Pedal Position 5 Volt Reference (2)	I	-
34	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal (2)	I	-
35	-	-	-	Not Occupied	-	-
36	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)(3)	I	-
37	0.5	WH	7494	High Speed GMLAN Serial Data (-)(3)	I	-
38	0.5	WH	1579	Fuel Temperature/Composition Signal	I	-
39	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
41-43	-	-	-	Not Occupied	-	-
44	0.5	GY	5660	Fuel Pump Controller Data Out Signal	I	-
45	-	-	-	Not Occupied	-	-
46	0.5	BN/WH	419	Check Engine Indicator Control	I	-
47	0.5	WH	5359	Brake Apply Sensor Supply Voltage	I	-
48	0.5	D-BU/YE	5361	Brake Apply Sensor Signal	I	-
49-50	-	-	-	Not Occupied	-	-
51	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage	I	-
52	0.5	RD/BN	440	Battery Positive Voltage	I	-
53	0.5	BK/PU	1272	Accelerator Pedal Position Low Reference (2)	I	-
54-56	-	-	-	Not Occupied	-	-
57	0.5	WH/D-BU	6311	Cruise/ETC/TCC Brake Signal	I	-

58	-	-	-	Not Occupied	-	-
59	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	-
60-61	-	-	-	Not Occupied	-	-
62	0.5	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)	I	-
63	0.5	YE/BK	625	Starter Enable Relay Control	I	-
64-65	-	-	-	Not Occupied	-	-
66	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	-
67	0.5	VT/D-BU	5292	Powertrain Main Relay Fused Supply (3)	I	-
68	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	I	-
69	-	-	-	Not Occupied	-	-
70	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	-
71	-	-	-	Not Occupied	-	-
72	0.5	YE	5991	Powertrain Relay Coil Control	I	-
73	2.5	VT/D-BU	5290	Powertrain Main Relay Fused Supply (1)	II	-



Connector Part Information

Harness Type: Engine

OEM Connector: 13820450

Service Connector: 19301191

Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (L-BU)	J-38125-12A	33467-0003	23	J	J
II	13575812	J-35616-64B (L-BU)	J-38125-12A	33467-0003	23	K	K
III	13581359	J-35616-35 (VT)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

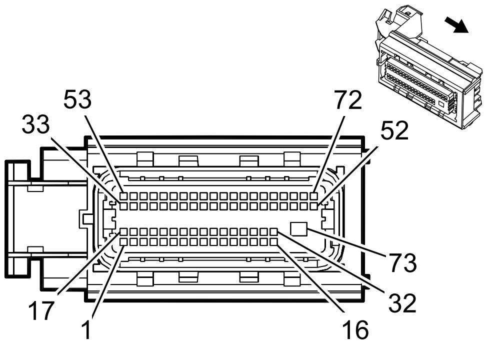
K20 Engine Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	-
4-5	-	-	-	Not Occupied	-	-
6	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	-
7	0.5	BK/L-GN	822	Vehicle Speed Sensor Low Reference	I	-
8	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	I	NQH
9	-	-	-	Not Occupied	-	-
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor (1)	I	-
11	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor (1)	I	-
12	0.5	VT/D-BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor (2)	I	-
13	0.5	VT/L-GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor (2)	I	-
14	-	-	-	Not Occupied	-	-
15	0.5	GY/D-BU	7564	Humidity Sensor Signal	I	-

16	0.5	BN/WH	582	Throttle Actuator Control Close	I	-
17	-	-	-	Not Occupied	-	-
18	0.5	BN/RD	2917	Fuel Rail Pressure Sensor (5) Volt Reference	I	-
19	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	-
20-25	-	-	-	Not Occupied	-	-
26	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor (1)	I	-
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor (1)	I	-
28	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor (2)	I	-
29	0.5	YE/D-BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor (2)	I	-
30-31	-	-	-	Not Occupied	-	-
32	0.5	YE	581	Throttle Actuator Control Open	I	-
33	-	-	-	Not Occupied	-	-
34	0.5	BN/RD	2701	Throttle Position Sensor 5 Volt Reference	I	-
35	-	-	-	Not Occupied	-	-
36	0.75	VT/GY	496	Knock Sensor Signal (1)	II	-
37	0.75	WH/GY	1876	Knock Sensor Signal (2)	II	-
38-39	-	-	-	Not Occupied	-	-
40	0.5	VT/D-BU	6091	Crankshaft Position Sensor Replicated Signal	I	NKC
41	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor (1)	I	-
42	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor (2)	I	-
43	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	-
44	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5 Volt Reference	I	-
45-48	-	-	-	Not Occupied	-	-
49	0.5	WH/D-BU	6289	Induction Air Temperature Sensor Signal	I	-
50	-	-	-	Not Occupied	-	-
51	0.5	L-GN/D-BU	428	EVAP Canister Purge Solenoid Control	I	-
52	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	I	-
53	0.5	BN	25	Charge Indicator Control	I	-
54	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	-
55	0.5	GY	23	Generator Field Duty Cycle Signal	I	-
56	0.75	BK/YE	1716	Knock Sensor Low Reference (1)	II	-

57	0.75	BK/GY	2303	Knock Sensor Low Reference (2)	II	-
58	0.5	WH/GY	1786	Transmission Park/Neutral Signal (1)	I	-
59	0.5	D-BU	179	Oil Pump Command Signal	I	-
60	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	-
61	0.5	L-GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor (1)	I	-
62	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor (2)	I	-
63	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	-
64	-	-	-	Not Occupied	-	-
65	0.5	BK/D-BU	61	Outside Ambient Temperature Sensor Low Reference	I	-
66-68	-	-	-	Not Occupied	-	-
69	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor 5V Return	I	-
70	0.5	D-BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	-
71-72	-	-	-	Not Occupied	-	-
73	2.5	BK/WH	451	Signal Ground	III	-

K20 Engine Control Module X3



Connector Part Information

Harness Type: Engine

OEM Connector: 13820451

Service Connector: 19260918

Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (L-BU)	J-38125-12A	33467-0003	23	J	J
II	13575812	J-35616-64B (L-BU)	J-38125-12A	33467-0003	23	K	K
III	13581359	J-35616-35 (VT)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

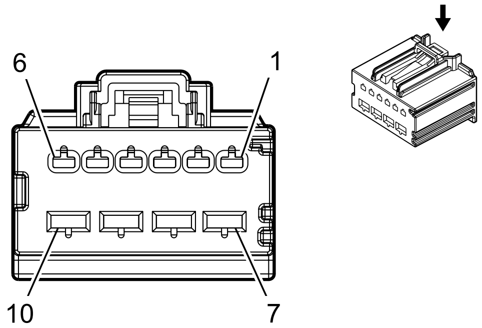
K20 Engine Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	-
2	0.5	WH/RD	2705	Oil Pressure Sensor 5 Volt Reference	I	-
3	0.5	BN/YE	2161	Fuel Rail Pressure Sensor #2 Signal	I	-
4-7	-	-	-	Not Occupied	-	-
8	0.5	D-BU	410	Engine Coolant Temperature Sensor Signal	I	-
9	-	-	-	Not Occupied	-	-
10	0.5	VT/D-BU	6270	Crankshaft 60X Sensor Voltage	I	-
11	0.5	L-GN/D-BU	2123	Ignition Control (3)	I	-
12	0.5	YE/D-BU	2124	Ignition Control (4)	I	-
13	0.5	D-BU/GY	2125	Ignition Control (5)	I	-
14	0.5	BN/D-BU	2126	Ignition Control (6)	I	-
15	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	-
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	II	-

17	0.5	BK/PU	2755	Oil Pressure Sensor Low Reference	I	-
18-23	-	-	-	Not Occupied	-	-
24	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	-
25	0.5	BK/PU	6272	Crankshaft 60X Sensor Low Reference	I	-
26	0.5	L-GN	6271	Crankshaft 60X Sensor Signal	I	-
27	0.5	D-BU/WH	2122	Ignition Control (2)	I	-
28	0.5	L-GN/GY	2127	Ignition Control (7)	I	-
29	0.5	VT/WH	2128	Ignition Control (8)	I	-
30	0.5	D-BU/VT	2121	Ignition Control (1)	I	-
31	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	-
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	II	-
33	0.5	YE/VT	5275	Camshaft Position Intake Sensor (1)	I	-
34	0.5	GY/D-BU	5300	Camshaft Position Intake Sensor Supply Voltage (1)	I	-
35-38	-	-	-	Not Occupied	-	-
39	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid (1)	I	-
40-42	-	-	-	Not Occupied	-	-
43	0.5	GY	5493	Cylinder Shutoff Solenoid Control (3)	I	-
44	0.5	YE/D-BU	5494	Cylinder Shutoff Solenoid Control (4)	I	-
45	0.75	GY/D-BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	-
46	0.75	D-BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	-
47	0.75	PU/L-GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	II	-
48	0.75	GY	4808	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	II	-
49	0.75	L-GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	-
50	0.75	YE/GY	4807	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	II	-
51	0.75	WH/L-GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	II	-
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	-
53	0.5	BK/L-GN	5301	Camshaft Position Intake Sensor Low Reference (1)	I	-
54-58	-	-	-	Not Occupied	-	-
59	0.5	BK/BN	6753	Cam Phaser W Return Low Reference	I	-
60-62	-	-	-	Not Occupied	-	-
63	0.5	D-BU	5491	Cylinder Shutoff Solenoid Control (1)	I	-

64	0.5	L-GN	5492	Cylinder Shutoff Solenoid Control (2)	I	-
65	0.75	D-BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	-
66	0.75	D-BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	-
67	0.75	PU/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	II	-
68	0.75	GY/WH	4908	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	II	-
69	0.75	L-GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	-
70	0.75	WH/YE	4907	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	II	-
71	0.75	L-GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	II	-
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	-
73	2.5	BK/WH	451	Signal Ground	III	-

K29 Seat Heating Control Module X1 (KA1)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 31372-1000

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5, 2.8 Series (BK)

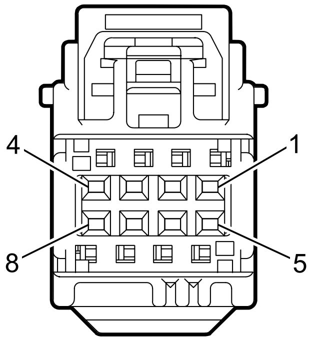
Terminal Part Information

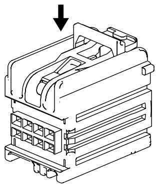
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

K29 Seat Heating Control Module X1 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	6140	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.75	WH/BN	2481	Passenger Heated Back Element Supply Voltage	I	-
4	0.75	BN/L-BU	2479	Passenger Heated Seat Element Supply Voltage	I	-
5	0.75	BN	2432	Driver Heated Back Element Supply Voltage	I	-
6	0.75	BN/VT	2077	Driver Heated Seat Element Supply Voltage	I	-
7	-	-	-	Not Occupied	-	-
8	0.75	BK	1250	Ground	II	-
9	-	-	-	Not Occupied	-	-
10	0.75	RD/L-GN	5140	Battery Positive Voltage	II	-

K29 Seat Heating Control Module X2 (KA1)





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 89047352

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F YESC Kaizen Series (BK)

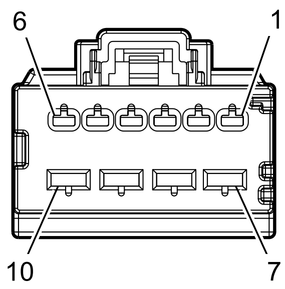
Terminal Part Information

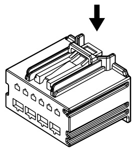
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K29 Seat Heating Control Module X2 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-5	-	-	-	Not Occupied	-	-
6	0.35	L-GN/L-BU	6133	Linear Interconnect Network Bus 2	I	-
7-8	-	-	-	Not Occupied	-	-

K29R Seat Heating Control Module - Rear X1 (KA6)





Connector Part Information

Harness Type: 2nd Row Seat Left

OEM Connector: 31372-1000

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5, 2.8 Series (BK)

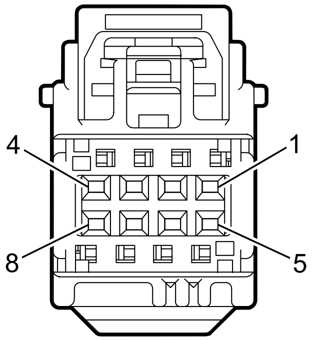
Terminal Part Information

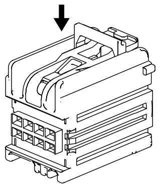
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K29R Seat Heating Control Module - Rear X1 (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	6140	Battery Positive Voltage	I	-
2-3	-	-	-	Not Occupied	-	-
4	0.75	L-GN/BN	2296	Right Rear Heated Seat Cushion Element Supply Voltage	I	-
5	-	-	-	Not Occupied	-	-
6	0.75	GY	2294	Left Rear Heated Seat Cushion Element Supply Voltage	I	-
7	-	-	-	Not Occupied	-	-
8	0.75	BK	1150	Ground	I	-
9	-	-	-	Not Occupied	-	-
10	0.75	RD/L-GN	5140	Battery Positive Voltage	I	-

K29R Seat Heating Control Module - Rear X2 (KA6)





Connector Part Information

Harness Type: 2nd Row Seat Left

OEM Connector: 89047352

Service Connector: 13576542

Description: 8-Way F YESC Kaizen Series (BK)

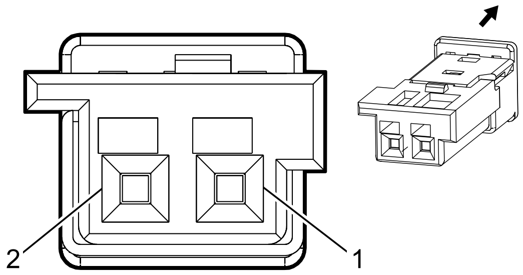
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K29R Seat Heating Control Module - Rear X2 (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-4	-	-	-	Not Occupied	-	-
5	0.35	BK	1150	Ground	I	-
6	0.35	L-GN/L-BU	6133	Linear Interconnect Network Bus 2	I	-
7-8	-	-	-	Not Occupied	-	-

K32 Steering Wheel Heating Control Module X1 (UVD with Z75)



Connector Part Information

Harness Type: Steering Wheel

OEM Connector: 13235945

Service Connector: 88988507

Description: 2 F 0.64 Micro-Power Quadlok Series (BK)

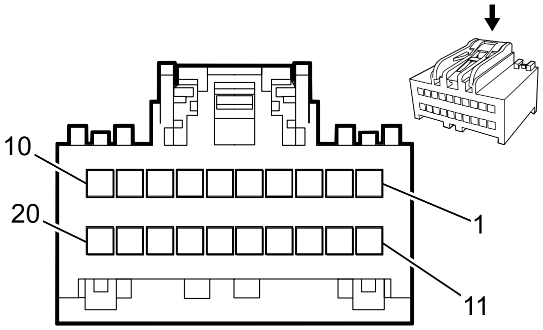
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K32 Steering Wheel Heating Control Module X1 (UVD with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG	5883	Heated Steering Wheel Switch Signal	I	-
2	0.35	PK	5884	Heated Steering Wheel Switch LED Control	I	-

K33 HVAC Control Module X1



Connector Part Information

Harness Type: HVAC

OEM Connector: 13611322

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 0.64 Series (GN with WH Terminal Position Assurance)

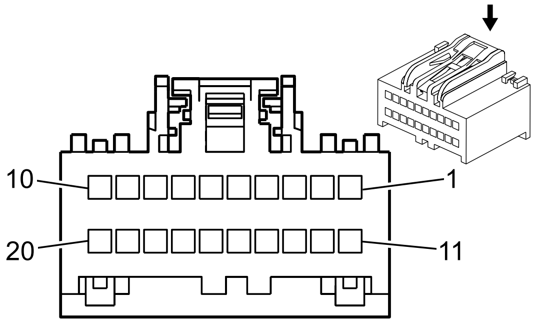
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K33 HVAC Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-3	-	-	-	Not Occupied	-	-
4	0.35	D-BU/WH	734	Inside Air Temperature Sensor Signal	I	-
5-12	-	-	-	Not Occupied	-	-
13	0.35	YE/VT	1783	Twilight Sentinel Delay Signal	I	-
14	0.35	YE/VT	1783	Twilight Sentinel Delay Signal	I	-
15-17	-	-	-	Not Occupied	-	-
18	0.35	BN	404	Upper Air Temperature Sensor Signal	I	-
19	0.35	BN/BK	405	Lower Air Temperature Sensor Signal	I	-
20	0.35	GY	590	Solar Sensor Driver Signal	I	-

K33 HVAC Control Module X2



Connector Part Information

Harness Type: HVAC

OEM Connector: 15491305

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F USCAR 64 Series (BN)

Terminal Part Information

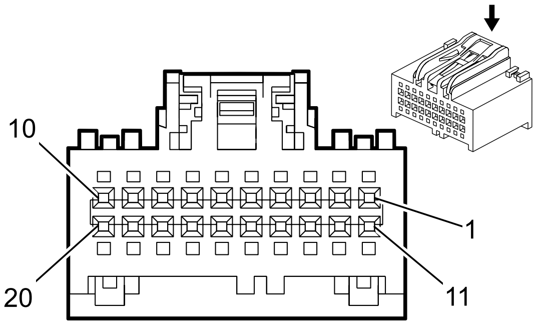
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K33 HVAC Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/VT	3340	Battery Positive Voltage	I	-
2	0.35	L-GN	5060	Low Speed GMLAN Serial Data	I	-
3	-	-	-	Not Occupied	-	-
4	0.35	D-GN/YE	7531	Linear Interconnect Network Bus 9	I	-
5–7	-	-	-	Not Occupied	-	-
8	0.35	BK/WH	1851	Signal Ground	I	-
9	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	I	-
10	0.5	D-BU/YE	7574	Electric Variable Displacement Control	I	-
11	0.5	L-BU/BN	7573	Electric Variable Displacement Supply	I	-
12-14	-	-	-	Not Occupied	-	-
15	0.35	D-BU/GY	754	Blower Motor Speed Control	I	-
16	0.35	L-GN/BK	2211	Rear Blower Motor Speed Control	I	-
17	0.35	GY/RD	598	5 Volt Reference	I	-
18	0.35	BK/YE	1791	Air Temperature Door Control Low Reference	I	-
19	0.35	BN/VT	193	Rear Defog Relay Control	I	-

20	-	-	-	Not Occupied	-	-

K33 HVAC Control Module X3



Connector Part Information

Harness Type: HVAC

OEM Connector: 15489824

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 0.64 Series (BK with WH Terminal Position Assurance)

Terminal Part Information

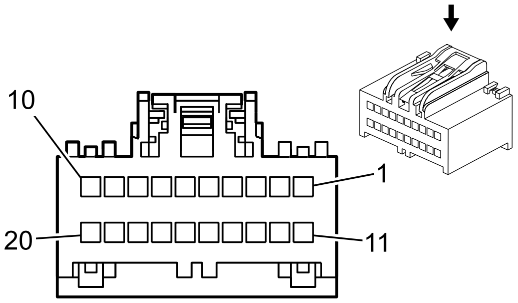
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K33 HVAC Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU	516	Upper Left Air Temperature Sensor Signal	I	-
2	0.35	YE/BN	2273	Mode Door Control	I	-
3	0.35	WH	119	Mode Door Control	I	-
4	0.35	WH/D-GN	2275	Mode 1 Valve Position Sensor Signal	I	-
5-8	-	-	-	Not Occupied	-	-
9	0.35	BK/YE	407	Sensor Low Reference	I	-
10	-	-	-	Not Occupied	-	-
11	0.35	GY/D-GN	2210	Air Temperature Door Control	I	-
12	0.35	L-BU/BN	1199	Air Temperature Door Control	I	-
13	0.35	D-BU/YE	733	Air Temperature Door Position Signal	I	-
14-15	-	-	-	Not Occupied	-	-
16	0.35	YE/BK	2274	Recirculation Door Control	I	-
17	0.35	D-GN	1614	Recirculation Door Control	I	-
18	0.35	VT/L-GN	1838	Recirculation Door Position Signal	I	-
19	-	-	-	Not Occupied	-	-

20	0.35	GY	6137	EVAP Core Temperature Sensor Signal	I	-

K33 HVAC Control Module X4



Connector Part Information

Harness Type: HVAC

OEM Connector: 15491304

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F USCAR 64 Series (GY)

Terminal Part Information

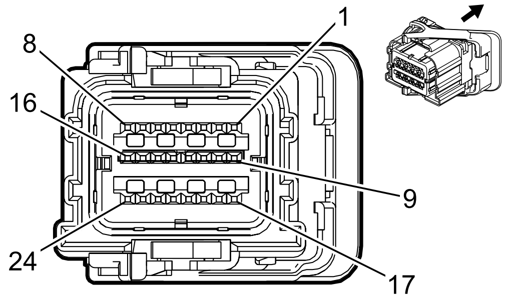
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K33 HVAC Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-4	-	-	-	Not Occupied	-	-
5	0.35	GY/BK	2778	Passenger Air Temperature Motor Control	I	-
6	0.35	WH/BK	1236	Passenger Air Temperature Door Control	I	-
7	0.35	BN/L-BU	1646	Passenger Air Temperature Door Position Signal	I	-
8	-	-	-	Not Occupied	-	-
9	0.35	YE	517	Upper Right Air Temperature Sensor Signal	I	-
10	-	-	-	Not Occupied	-	-
11	0.35	D-GN	518	Lower Left Air Temperature Sensor Signal	I	-
12	0.35	RD	520	Lower Right Air Temperature Sensor Signal	I	-
13	0.35	D-GN/WH	5729	Rear Mode Motor Supply Voltage	I	-
14	0.35	BK/L-GN	5730	Rear Mode Motor Low Reference	I	-
15	0.35	GY	2599	Rear Mode Motor Signal	I	-
16	-	-	-	Not Occupied	-	-
17	0.35	WH/BN	2775	Rear Air Temperature Motor Control	I	-
18	0.35	GY	2614	Rear Air Temperature Door Control	I	-

19	0.35	GY/D-BU	2145	Passenger Air Temperature Switch Signal	I	-
20	-	-	-	Not Occupied	-	-

K36 Inflatable Restraint Sensing and Diagnostic Module X1



Connector Part Information

Harness Type: Body

OEM Connector: 13887360

Service Connector: 19328755

Description: 24-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

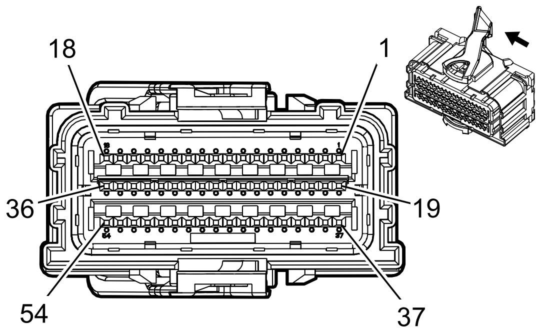
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13580076	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/L-GN	3023	Steering Wheel Module Stage 2 High Control	I	-
2	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	I	-
3	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	I	-
4	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	I	-
5	0.35	YE/OG	3025	Passenger IP Module Stage 1 High Control	I	-
6	0.35	OG/WH	3024	Passenger IP Module Stage 1 Low Control	I	-
7	0.35	OG/VT	3026	Passenger IP Module Stage 2 Low Control	I	-
8	0.35	GY/OG	3027	Passenger IP Module Stage 2 High Control	I	-
9	0.5	RD/L-GN	4440	Battery Positive Voltage	I	-
10	0.35	VT/WH	5234	Passenger Seat Belt Indicator	I	-
11	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	I	-
12	0.35	L-GN	2308	Passenger Air Bag Off Indicator Control	I	-
13	0.35	VT/OG	371	Passenger IP Module Disable Switch Signal	I	-
14	0.35	D-BU/OG	7328	Passenger IP Module Disable Switch Return	I	-
15	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-

16	-	-	-	Not Occupied	-	-
17	0.5	WH/D-BU	5986	Serial Data Communication Enable	I	-
18	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
19	0.5	BK/WH	2751	Signal Ground	I	-
20	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
21-24	-	-	-	Not Occupied	-	-

K36 Inflatable Restraint Sensing and Diagnostic Module X2



Connector Part Information

Harness Type: Body

OEM Connector: 13944372

Service Connector: 19303770

Description: 54-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

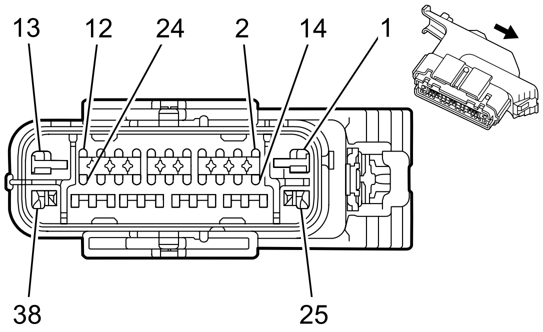
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13580076	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/WH	4107	Center Side Impact Module High Control	I	AYQ
2	0.35	VT	4106	Center Side Impact Module Low Control	I	AYQ
3-8	-	-	-	Not Occupied	-	-
9	0.35	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	-
10	0.35	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	-
11	0.35	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	-
12	0.35	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	-
13	0.35	OG/D-BU	3068	Driver Side Impact Module High Control	I	-
14	0.35	L-GN/OG	3069	Driver Side Impact Module Low Control	I	-
15	0.35	BN/OG	3067	Passenger Side Impact Module Low Control	I	-
16	0.35	OG/GY	3066	Passenger Side Impact Module High Control	I	-
17	0.35	OG/L-GN	5019	Left Front Head Curtain Module High Control	I	-
18	0.35	VT/OG	5020	Left Front Head Curtain Module Low Control	I	-
19	0.35	OG/L-GN	2132	Left Front Side Impact Sensing Module Signal	I	-
20	0.35	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	-

21	0.35	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	-
22	0.35	BN/OG	2134	Right Front Side Impact Sensing Module Signal	I	-
23	0.35	OG/YE	354	Left Front Discriminating Sensor Signal	I	-
24	0.35	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	-
25	0.35	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	-
26	0.35	OG/L-GN	1409	Right Front Discriminating Sensor Signal	I	-
27	0.35	OG/D-BU	6620	Left Middle Side Impact Sensing Module Signal	I	-
28	0.35	BK/OG	6621	Left Middle Side Impact Sensing Module Low Reference	I	-
29	0.35	BK/OG	6625	Right Middle Side Impact Sensing Module Low Reference	I	-
30	0.35	OG/VT	6624	Right Middle Side Impact Sensing Module Signal	I	-
31-36	-	-	-	Not Occupied	-	-
37	0.35	OG/WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	-
38	0.5	GY	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	-
39	0.5	WH	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	-
40	0.35	OG/L-GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	-
41	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	-
42	0.35	OG/L-GN	5055	Driver Seat Position Switch Signal	I	-
43	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	-
44	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	-
45	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	-
46	0.35	OG/D-BU	5056	Passenger Seat Position Switch Signal	I	-
47-52	-	-	-	Not Occupied	-	-
53	0.35	OG/GY	5021	Right Front Head Curtain Module High Control	I	-
54	0.35	WH/OG	5022	Right Front Head Curtain Module Low Control	I	-

K38 Chassis Control Module (Z75)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13518748

Service Connector: 19178089

Description: 38-Way F 0.64, 280 GT Series, Sealed (BK)

Terminal Part Information

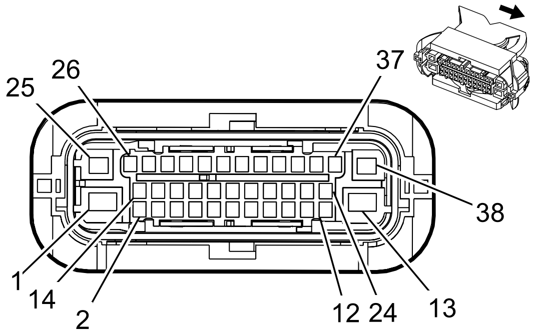
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575408	J-35616-4A (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
II	13582340	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	13582321	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K38 Chassis Control Module (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/VT	1940	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	BN	3891	Aero Shutter Control	II	-
4	0.5	GY	3890	Aero Shutter Control 2	II	-
5	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
6	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
7	-	-	-	Not Occupied	-	-
8	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	-
9-10	-	-	-	Not Occupied	-	-
11	0.5	GY	3890	Aero Shutter Control 2	II	-
12	0.5	BN	3891	Aero Shutter Control	II	-
13-16	-	-	-	Not Occupied	-	-
17	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-

18	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
19-20	-	-	-	Not Occupied	-	-
21	0.75	PU/L-GN	439	Run/Crank Ignition 1 Voltage	III	-
22-24	-	-	-	Not Occupied	-	-
25	2.5	BK	2150	Ground	I	-
26-38	-	-	-	Not Occupied	-	-

K38 Chassis Control Module (JL1 or Z85)



Connector Part Information

Harness Type: Chassis

OEM Connector: 15533088

Service Connector: 19329924

Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

Terminal Part Information

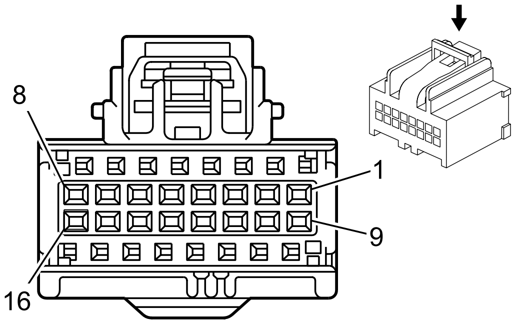
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119560	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
II	19329827	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19119772	J-35616-35 (VT)	J-38125-557	Not Available	Not Available	Not Available	Not Available

K38 Chassis Control Module (JL1 or Z85)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/WH	2040	Battery Positive Voltage	I	-
2	0.5	L-GN/RD	1214	Right Rear Strut Position Sensor Voltage Reference	II	Z85
3	0.5	BK/YE	1215	Right Rear Strut Position Sensor Low Reference	II	Z85
4	0.5	L-GN/GY	1216	Right Rear Strut Position Sensor Signal	II	Z85
5	0.5	YE/RD	1208	Left Rear Strut Position Sensor Voltage Reference	II	Z85
6	0.5	BK/L-GN	1209	Left Rear Strut Position Sensor Low Reference	II	Z85
7	0.5	L-GN/WH	1210	Left Rear Strut Position Sensor Signal	II	Z85
8	0.5	D-BU/RD	6076	Real Time Damping Air Pressure Sensor 5 Volt Reference	II	Z85
9	0.5	BK/YE	6077	Real Time Damping Air Pressuer Sensor Low Reference	II	Z85
10	0.5	YE/L-GN	6075	Real Time Damping Air Pressure Sensor Signal	II	Z85
11-12	-	-	-	Not Occupied	-	-
13	0.75	BK	1750	Ground	I	-
14	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	-

15	-	-	-	Not Occupied	-	-
16	0.5	D-BU/RD	7632	Integrated Trailer Brake Controller Switch 5 Volt Reference	II	JL1
17	0.5	D-BU	47	Trailer Auxiliary Supply Voltage	II	JL1
18	0.5	BN	7634	Integrated Trailer Brake Contoller Redundant Manual Apply Signal	II	JL1
19	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	II	JL1
20	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	II	JL1
21	0.5	L-GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	II	JL1
22	0.5	YE/BK	2224	Trailer Brake Enable Signal	II	JL1
23	0.5	WH/BK	2223	Trailer Brake Control Signal	II	JL1
24	-	-	-	Not Occupied	-	-
25	0.75	PU/L-GN	439	Run/Crank Ignition 1 Voltage	III	JL1
26	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
27	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
28	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
29	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
30	0.5	GY	2225	Trailer Brake Current Feedback Signal	II	JL1
31-34	-	-	-	Not Occupied	-	-
35	0.5	BN/YE	1112	Damping Relay Coil Control	II	Z85
36	0.75	WH/L-GN	320	Automatic Level Control Exhaust Solenoid Control	II	Z85
37-38	-	-	-	Not Occupied	-	-

K39 Liftgate Control Module X1 (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 15491285

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F Kaizen 64 Series (BK)

Terminal Part Information

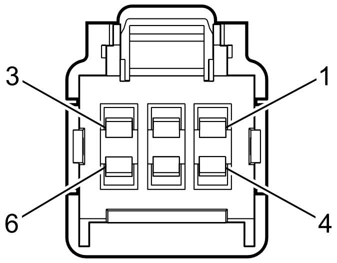
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

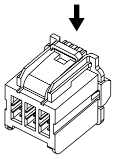
K39 Liftgate Control Module X1 (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/D-BU	6112	Power Lift Gate On/Off Switch Signal	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN/RD	3033	Lift Gate Shut Face Switch Signal	I	-
4	0.35	VT/L-GN	3987	Cinch Latch Lift Gate Signal	I	-
5	0.35	D-BU/BK	6000	Lift Gate Ajar Switch Signal (2)	I	-
6	0.35	YE	3988	Detent Lift Gate Signal	I	-
7	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
8	0.35	WH/BK	6126	Lift Gate Object Sensor 2 Signal	I	-
9	0.35	L-GN/WH	6127	Lift Gate Unlatch Switch Signal	I	-
10	0.5	YE/OG	5797	Rear Closure Handle Switch Open Signal	I	ATH or TC2
11	-	-	-	Not Occupied	-	-
12	0.5	GY/BK	6113	Rear Lift Gate Open/Close Switch Signal	I	-
13	-	-	-	Not Occupied	-	-
14	0.35	YE/D-BU	5797	Rear Closure Handle Switch Open Signal	I	-
15	0.5	L-GN/BN	4118	Linear Interconnect Network Bus 18	I	-

16	0.35	BK/VT	5801	Lift Gate Object Sensor Low Reference	I	-

K39 Liftgate Control Module X2 (TB5 or TC2)





Connector Part Information

Harness Type: Liftgate

OEM Connector: 13796274

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 280 GT Series (BK)

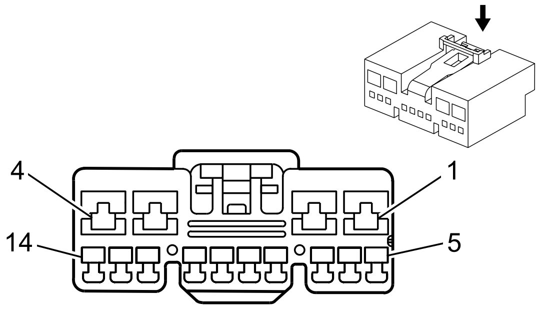
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available

K39 Liftgate Control Module X2 (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	D-BU/GY	5791	Lift Gate Cinch Latch Motor Close Control	I	-
2	1	BN	5790	Lift Gate Cinch Latch Motor Open Control	I	-
3	3	RD/GY	7040	Battery Positive Voltage	I	-
4	0.5	RD/D-BU	840	Battery Positive Voltage	I	-
5	-	-	-	Not Occupied	-	-
6	3	BK	1450	Ground	I	-

K39 Liftgate Control Module X3 (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 15466088

Service Connector: Service by Harness - See Part Catalog

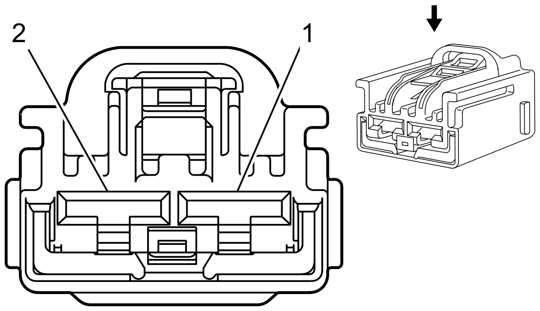
Description: 14-Way F 0.64, 2.8 YESC Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K39 Liftgate Control Module X3 (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	WH	5798	Lift Gate Open/Close Motor Open Control	I	-
2	2	BN/WH	5799	Lift Gate Open/Close Motor Close Control	I	-
3-7	-	-	-	Not Occupied	-	-
8	0.35	BN/RD	5803	Lift Gate Position Sensor Voltage Reference	II	-
9	0.35	D-BU/WH	5805	Lift Gate Position Sensor Signal (1)	II	-
10	0.35	BN/YE	5806	Lift Gate Position Sensor Signal (2)	II	-
11	0.35	BK/L-GN	5804	Lift Gate Position Sensor Low Reference	II	-
12	-	-	-	Not Occupied	-	-
13	0.5	GY	3986	Cinch Latch Lift Gate Stall Motor Release Signal	II	-
14	-	-	-	Not Occupied	-	-



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-6458-40

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 6.3 Series (L-GY)

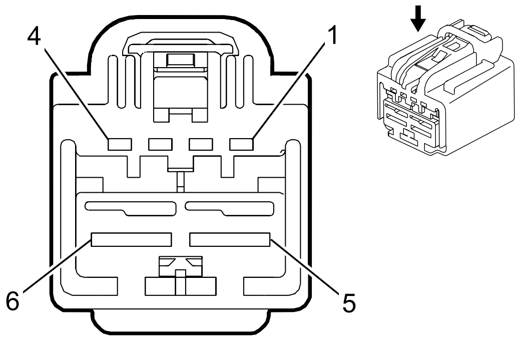
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

K40D Seat Memory Control Module - Driver X1 (A45 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/BN	1140	Battery Positive Voltage	I	-
2	2.5	RD/YE	5040	Battery Positive Voltage	I	-

K40D Seat Memory Control Module - Driver X2 (A45 or ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15226104

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F YESC Kaizen Series (BK)

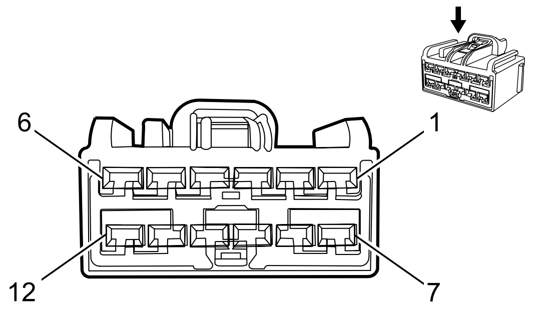
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

K40D Seat Memory Control Module - Driver X2 (A45 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	L-GN/WH	7530	Linear Interconnect Network Bus 8	I	-
4	0.35	L-GN/GY	3758	Linear Interconnect Network Bus 13	I	ULT
5	2.5	BK	1150	Ground	II	-
6	-	-	-	Not Occupied	-	-

K40D Seat Memory Control Module - Driver X3 (A45 or ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 13280238

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 2.8 Kaizen Series (L-GY)

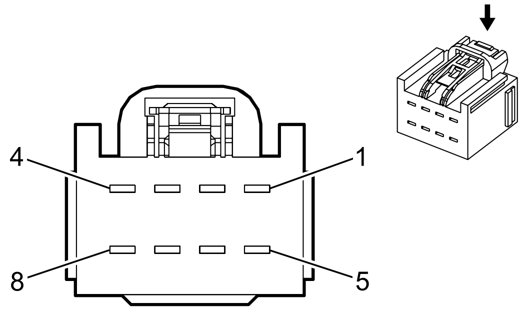
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

K40D Seat Memory Control Module - Driver X3 (A45 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/YE	276	Driver Power Seat Recline Motor Forward Control	I	-
2	1.5	L-BU/YE	277	Driver Power Seat Recline Motor Rearward Control	I	-
3	1.5	L-GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	-
4	1.5	L-BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	-
5	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	-
6	1.5	GY/L-BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	-
7	1.5	YE/BN	768	Driver Power Seat Lumbar Motor Up Control	I	-
8	1.5	YE/L-BU	767	Driver Power Seat Lumbar Motor Down Control	I	-
9	1.5	L-BU	611	Driver Power Seat Lumbar Motor Forward Control	I	-
10	1.5	VT	610	Driver Power Seat Lumbar Motor Rearward Control	I	-
11	1.5	YE/L-BU	285	Driver Power Seat Horizontal Motor Forward Control	I	-
12	1.5	GY/L-GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	-

K40D Seat Memory Control Module - Driver X4 (JF4 with A45 or ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-3243-40

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 2.8 Series (L-GY)

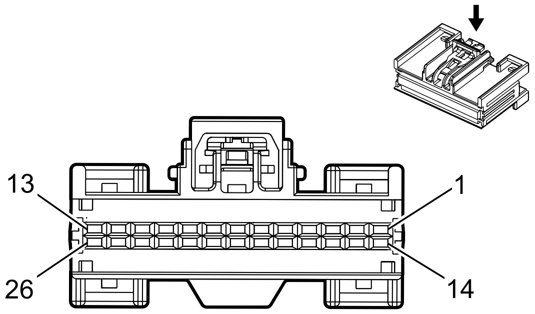
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

K40D Seat Memory Control Module - Driver X4 (JF4 with A45 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/VT	5130	Adjustable Pedal Actuator Forward Control	I	-
2	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	I	-
3-8	-	-	-	Not Occupied	-	-

K40D Seat Memory Control Module - Driver X5 (A45 or ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7287-2043-30

Service Connector: Service by Harness - See Part Catalog

Description: 26-Way F 0.64 Series (BK)

Terminal Part Information

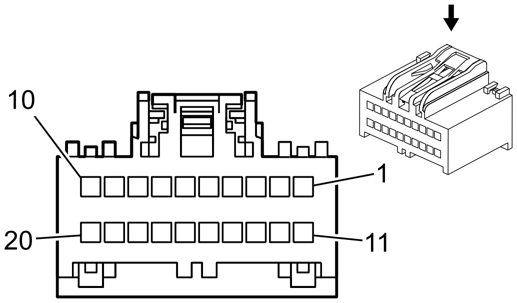
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K40D Seat Memory Control Module - Driver X5 (A45 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	3298	Memory Sensor High Reference (2)	I	-
2-3	-	-	-	Not Occupied	-	-
4	0.5	BN	3038	Right Rear Haptic Seat Motor Control	I	-
5	0.5	YE/BN	3037	Left Rear Haptic Seat Motor Control	I	-
6	0.5	BK/GY	6206	Memory Sensor Low Reference	I	-
7	0.5	YE/BN	1522	Power Seat Horizontal Forward Switch Signal	I	-
8	0.5	GY/L-GN	1523	Power Seat Horizontal Rearward Switch Signal	I	-
9	0.5	L-GN/BN	1518	Power Seat Front Vertical Up Switch Signal	I	-
10	0.5	L-BU/VT	1520	Power Seat Front Vertical Down Switch Signal	I	-
11	0.5	L-GN	569	Memory Seat Horizontal Motor Position Sensor Signal	I	-
12	0.5	BN/WH	557	Memory Seat Front Vertical Motor Position Sensor Signal	I	-
13	0.5	WH/RD	6207	Memory Sensor High Reference	I	-
14	0.5	YE	1065	Driver Seat Lumbar Forward Switch Signal	I	-
15	0.5	L-BU/VT	1064	Driver Seat Lumbar Rearward Switch Signal	I	-
16	0.5	WH	1066	Driver Seat Lumbar Up Switch Signal	I	-

17	0.5	YE/BK	1067	Driver Seat Lumbar Down Switch Signal	I	-
18	-	-	-	Not Occupied	-	-
19	0.5	YE	1519	Power Seat Rear Vertical Up Switch Signal	I	-
20	0.5	YE/L-BU	1521	Power Seat Rear Vertical Down Switch Signal	I	-
21	0.5	GY/BK	1269	Power Seat Recline Forward Switch Signal	I	-
22	0.5	L-GN/GY	1270	Power Seat Recline Rearward Switch Signal	I	-
23-24	-	-	-	Not Occupied	-	-
25	0.5	YE/L-BU	568	Memory Seat Rear Vertical Motor Position Sensor Signal	I	-
26	0.5	WH/BK	570	Driver Memory Seat Recline Motor Position Sensor Signal	I	-

K40D Seat Memory Control Module - Driver X6 (A45 or ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15126710

Service Connector: 93185233

Description: 20-Way M USCAR 64 Series (GY with WH Terminal Position Assurance)

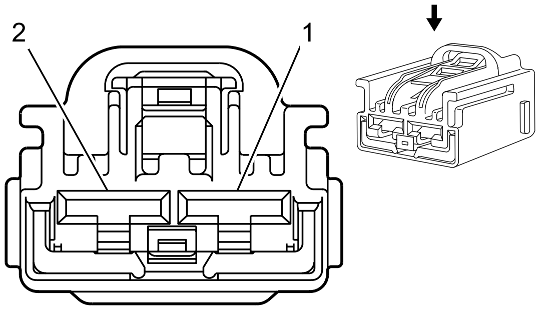
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K40D Seat Memory Control Module - Driver X6 (A45 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-3	-	-	-	Not Occupied	-	-
4	0.35	L-BU	5952	Adjustable Pedal Position Sensor Brake Signal	I	-
5	-	-	-	Not Occupied	-	-
6	0.35	L-GN/GY	5286	Adjustable Pedal Switch Forward Signal	I	-
7	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	I	-
8-10	-	-	-	Not Occupied	-	-
11	0.35	BK/L-BU	5978	Memory Switch Low Reference	I	-
12	0.35	WH	615	Memory Seat Switch Signal (1)	I	-
13-14	-	-	-	Not Occupied	-	-
15	0.35	L-GN/L-BU	614	Memory Seat Switch Set Signal	I	-
16-20	-	-	-	Not Occupied	-	-

K40P Seat Memory Control Module - Passenger X1 (AG2 or ULT)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 7283-6458-40

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 6.3 Series (L-GY)

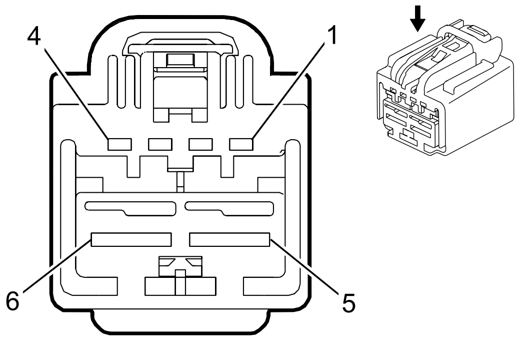
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

K40P Seat Memory Control Module - Passenger X1 (AG2 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/BN	1140	Battery Positive Voltage	I	-
2	2.5	RD/BN	1440	Battery Positive Voltage	I	-

K40P Seat Memory Control Module - Passenger X2 (AG2 or ULT)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 15226104

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F YESC Kaizen Series (BK)

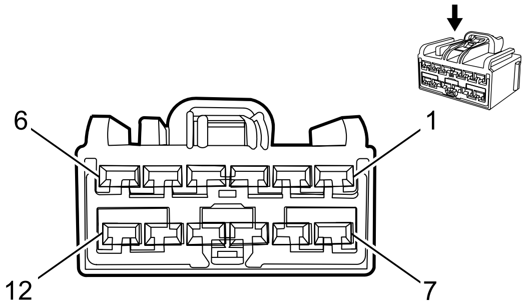
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

K40P Seat Memory Control Module - Passenger X2 (AG2 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
2-3	-	-	-	Not Occupied	-	-
4	0.35	L-GN	3758	Linear Interconnect Network Bus 13	I	-
5	2.5	BK	1250	Ground	II	-
6	-	-	-	Not Occupied	-	-

K40P Seat Memory Control Module - Passenger X3 (AG2 or ULT)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 13280238

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 2.8 Kaizen Series (L-GY)

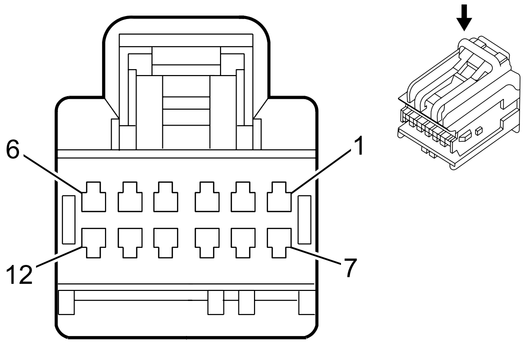
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

K40P Seat Memory Control Module - Passenger X3 (AG2 or ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-BU/BN	77	Passenger Power Seat Recline Motor Rearward	I	-
2	1.5	L-GN	76	Passenger Power Seat Recline Motor Forward	I	-
3	1.5	L-GN/BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	-
4	1.5	L-GN/VT	297	Passenger Power Seat Front Vertical Motor Up Control	I	-
5	1.5	L-BU/WH	289	Passenger Power Seat Rear Vertical Motor Down Control	I	-
6	1.5	L-GN/WH	288	Passenger Power Seat Rear Vertical Motor Up Control	I	-
7-10	-	-	-	Not Occupied	-	-
11	1.5	YE/L-BU	290	Passenger Power Seat Horizontal Motor Rearward Control	I	-
12	1.5	YE/WH	296	Passenger Power Seat Horizontal Motor Forward Control	I	-

K41 Front and Rear Parking Assist Control Module X1 (UD5 or UD7)



Connector Part Information

Harness Type: Body

OEM Connector: 13551678

Service Connector: 89047364

Description: 12-Way F 0.64 Series (BK)

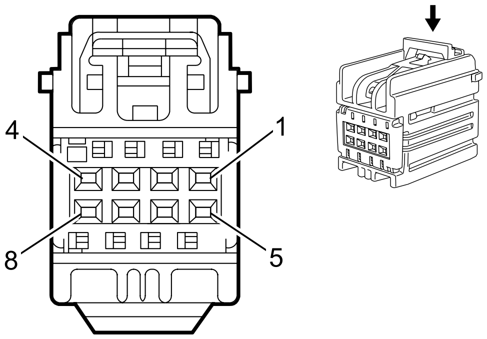
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579945	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13575840	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K41 Front and Rear Parking Assist Control Module X1 (UD5 or UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	3140	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN/BN	5852	Rear Park Assist LED Disable Signal	II	X88,Z88 or Z75 without UGN
4	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
5-6	-	-	-	Not Occupied	-	-
7	0.75	BK/WH	2751	Signal Ground	I	-
8	0.35	GY/L-GN	2555	Rear Park Assist Disable Signal	II	X88,Z88 or Z75 without UGN
9-12	-	-	-	Not Occupied	-	-

K41 Front and Rear Parking Assist Control Module X2 (UD5 or UD7)



Connector Part Information

Harness Type: Body

OEM Connector: 13551679

Service Connector: 19115653

Description: 8-Way F YESC Kaizen Series (L-GY)

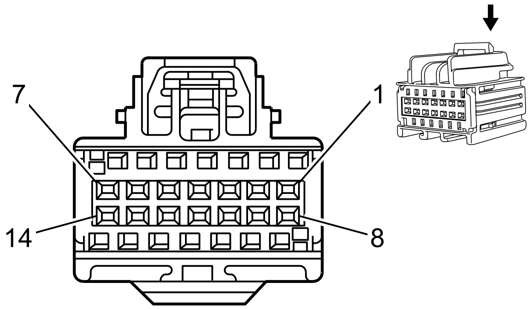
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K41 Front and Rear Parking Assist Control Module X2 (UD5 or UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	2375	Left Rear Corner Object Sensor Signal	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	YE/D-BU	2376	Left Rear Middle Object Sensor Signal	I	-
4	0.5	BN/WH	2374	Object Sensor Supply Voltage	I	-
5	0.5	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	-
6	-	-	-	Not Occupied	-	-
7	0.5	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	-
8	0.5	BK/GY	2379	Object Sensor Low Reference	I	-

K41 Front and Rear Parking Assist Control Module X3 (UD5)



Connector Part Information

Harness Type: Body

OEM Connector: 15491263

Service Connector: 15127038

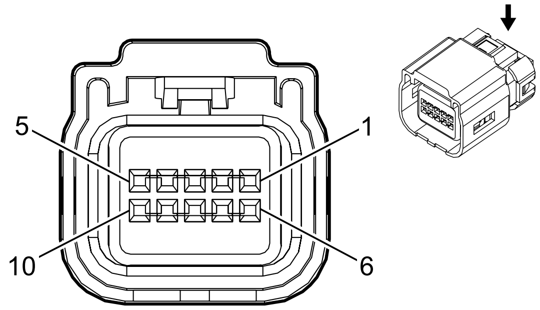
Description: 14-Way F Kaizen 64 Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13327119	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K41 Front and Rear Parking Assist Control Module X3 (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	5213	Front Parking Left/Right/Mid Sensor	I	-
2-3	-	-	-	Not Occupied	-	-
4	0.5	VT/WH	5215	Front Parking Left Corner Sensor	II	-
5	0.5	YE/GY	5216	Front Parking Left Mid Sensor	II	-
6-7	-	-	-	Not Occupied	-	-
8	0.5	BK/D-BU	5214	Front Parking Sensor Low Reference	II	-
9-10	-	-	-	Not Occupied	-	-
11	0.5	WH/GY	5217	Front Parking Right Corner Sensor	II	-
12	0.5	VT/GY	5218	Front Parking Right Mid Sensor	II	-
13-14	-	-	-	Not Occupied	-	-



Connector Part Information

Harness Type: Power Steering Jumper

OEM Connector: 28249219

Service Connector: Service by Harness - See Part

Description: 10–Way F Sealed (BK)

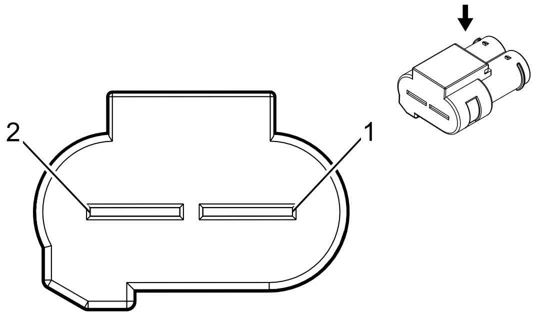
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K43 Power Steering Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BU	2501	High Speed GMLAN Serial Data (-) (1)	I	-
2	0.5	BK	2500	High Speed GMLAN Serial Data (+) (1)	I	-
3	0.5	YE/BU	6106	High Speed GMLAN Serial Data (-) (2)	I	-
4	0.5	BK/OG	6105	High Speed GMLAN Serial Data (+) (2)	I	-
5	0.5	GY	5986	Serial Data Communication Enable	I	-
6	0.5	BK/GN	2501	High Speed GMLAN Serial Data (-) (1)	I	-
7	0.5	WH/BN	2500	High Speed GMLAN Serial Data (+) (1)	I	-
8	0.5	VT	6106	High Speed GMLAN Serial Data (-) (2)	I	-
9	0.5	BN/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
10		–		Not Used	I	–

K43 Power Steering Control Module X2



Connector Part Information

Harness Type: Power Steering Jumper

OEM Connector: 28208864

Service Connector: Service by Harness - See Part

Description: 2–Way F Sealed (BK)

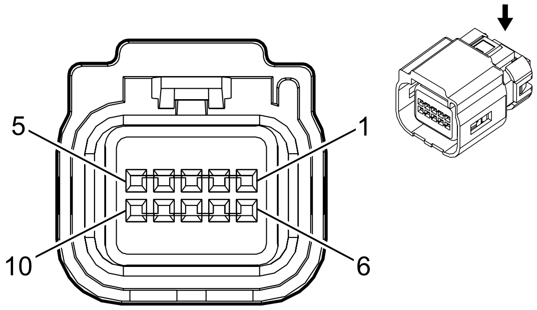
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K43 Power Steering Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	20	RD	842	Battery Positive Voltage	I	-
2	20	BK	350	Ground	I	-

K43 Power Steering Control Module X3



Connector Part Information

Harness Type: Power Steering Jumper

OEM Connector: 28249220

Service Connector: Service by Harness - See Part

Description: 10 F 0.64 Kaizen Series, Sealed (GY)

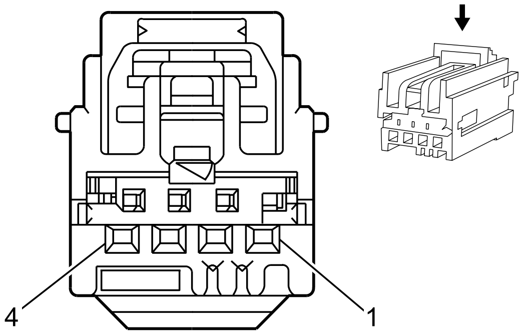
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K43 Power Steering Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	–	5-Volt Reference	I	-
2	0.5	TN	–	SDA	I	-
3	0.5	BU/GN	–	TRQ2 PWM Q2	I	-
4	0.5	BK	–	Low Reference	I	-
5	0.5	GN	–	TOR IN 1	I	-
6	0.5	VT	–	SCL	I	-
7	0.5	WH	–	TRQ1 PWM Q1	I	-
8	-	-	-	Not Occupied	-	-
9	0.5	GN/BU	–	TOR IN 2	I	-
10	-	-	-	Not Occupied	-	-

K53D Seat Blower Assembly - Driver Back (KB6)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-9016-30

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F (BK)

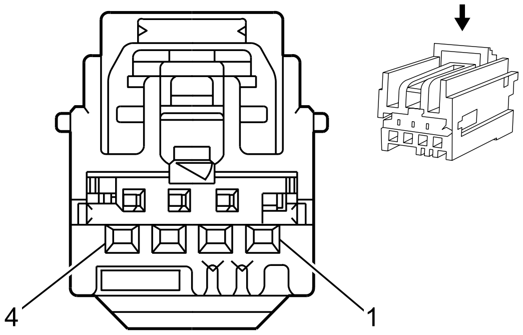
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K53D Seat Blower Assembly - Driver Back (KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	5140	Battery Positive Voltage	I	-
2	0.75	BN	2077	Driver Heated Seat Element Supply Voltage	I	-
3	0.35	L-GN/VT	5906	Driver Seat Vent Motor Control (1)	I	-
4	0.75	BK	1150	Ground	I	-

K53P Seat Blower Assembly - Passenger Back (KB6)



Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: 15226104

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F YESC Kaizen Series (BK)

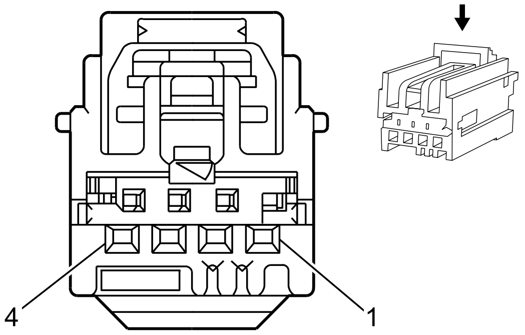
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K53P Seat Blower Assembly - Passenger Back (KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	6140	Battery Positive Voltage	I	-
2	0.75	WH/BN	2481	Passenger Heated Back Element Supply Voltage	I	-
3	0.35	VT/WH	5908	Passenger Seat Vent Motor Control (1)	I	-
4	0.75	BK	1250	Ground	I	-

K55D Seat Blower Assembly - Driver Cushion (KB6)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-9016-30

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F (BK)

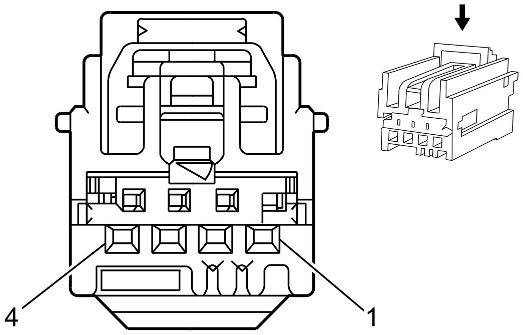
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K55D Seat Blower Assembly - Driver Cushion (KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	5140	Battery Positive Voltage	I	-
2	0.75	BN/VT	2077	Driver Heated Seat Element Supply Voltage	I	-
3	0.35	L-GN/VT	5906	Driver Seat Vent Motor Control (1)	I	-
4	0.75	BK	1150	Ground	I	-

K55P Seat Blower Assembly - Passenger Cushion (KB6)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 7283-9016-30

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F (BK)

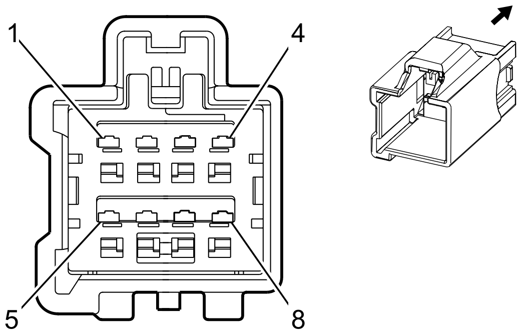
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K55P Seat Blower Assembly - Passenger Cushion (KB6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	6140	Battery Positive Voltage	I	-
2	0.75	BN/L-BU	2479	Passenger Heated Seat Element Supply Voltage	I	-
3	0.35	VT/WH	5908	Passenger Seat Vent Motor Control (1)	I	-
4	0.75	BK	1250	Ground	I	-

K60 Steering Column Lock Module (BTM)



Connector Part Information

Harness Type: Steering Column

OEM Connector: 13580897

Service Connector: 19153162

Description: 8–Way M, 1.5 Kaizen YESC Series (L-GY)

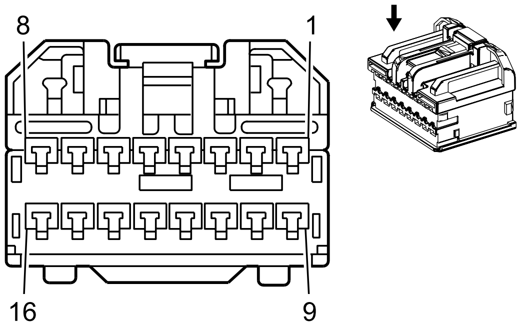
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K60 Steering Column Lock Module (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	I	-
2	0.35	GY/WH	5904	Steering Column Lock Status Signal	I	-
3	0.75	BU/VT	807	OFF / Accessory Voltage	I	-
4	0.35	GN/VT	1601	Steering Column Lock Signal	I	-
5	0.75	RD/GY	4140	Battery Positive Voltage	I	-
6	0.75	BK	1050	Ground	I	-
7	0.75	BK	1050	Ground	I	-
8	0.35	GN	5060	Low Speed GMLAN Serial Data	I	-

K69 Transfer Case Control Module X1 (NP0 or NQH)



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 13547237

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5 Series (GY)

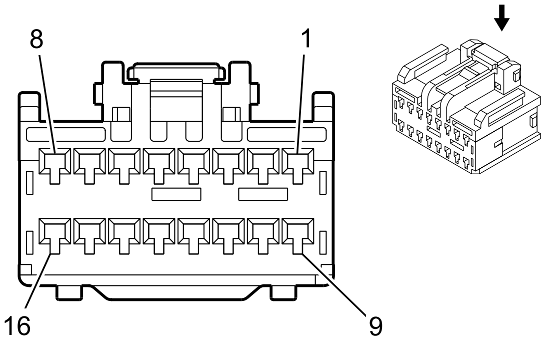
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

K69 Transfer Case Control Module X1 (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BK	7478	Rotary Position Sensor Return	I	-
2	0.5	WH/L-GN	7479	Rotary Position Sensor Signal	I	-
3	0.35	YE	7474	Incremental Encoder Direction Signal	I	-
4	0.5	GY/BK	1570	Front Axle Actuator Control	I	-
5	0.35	D-BU/GY	7473	Incremental Encoder Impulse Signal	I	-
6	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5 Volt Reference	I	-
7	0.35	D-BU/YE	1693	Four Wheel Drive Switch Signal	I	-
8	-	-	-	Not Occupied	-	-
9	0.5	WH/RD	7477	Rotary Position Sensor Supply 5V	I	-
10	0.35	WH/L-GN	7475	Incremental Encoder Sensor (8V) Supply	I	-
11	0.35	VT	7476	Incremental Encoder Sensor Return	I	-
12	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator	I	-
13	1	YE/BN	1569	Transfer Case Lock Solenoid Control	I	-
14-16	-	-	-	Not Occupied	-	-

K69 Transfer Case Control Module X2 (NP0 or NQH)



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 15489823

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5 Series (BK)

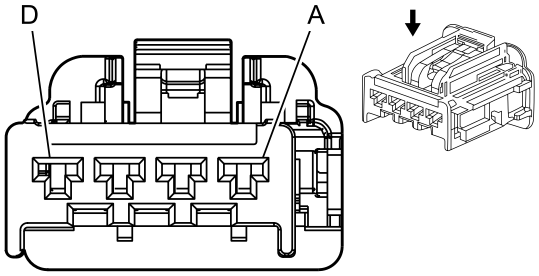
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

K69 Transfer Case Control Module X2 (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.35	VT/WH	1565	4 LO Indicator Control	I	NQH
4	0.35	VT/L-GN	1739	Run/Crank Ignition 1 Voltage	I	-
5	-	-	-	Not Occupied	-	-
6	0.35	VT/YE	5985	Accessory Wakeup Serial Data	I	-
7	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
9-10	-	-	-	Not Occupied	-	-
11	0.35	GY/L-GN	1561	AWD Indicator Control	I	-
12	0.35	BN	1560	Neutral Indicator Control	I	-
13	0.35	L-GN/BK	1563	2 HI Indicator Control	I	-
14	0.35	BN/BK	1566	4 HI Indicator Control	I	-
15	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
16	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-

K69 Transfer Case Control Module X3 (NP0 or NQH)



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 15466671

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 280 GT Series (L-GY)

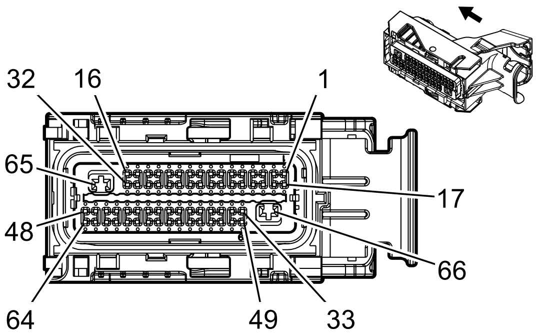
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available

K69 Transfer Case Control Module X3 (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	4	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	I	-
B	4	YE/GY	1552	Transfer Case Motor Clockwise Control	I	-
C	3	RD/GY	1342	Battery Positive Voltage	I	-
D	3	BK	550	Ground	I	-

K71 Transmission Control Module (M5U)



Connector Part Information

Harness Type: Engine

OEM Connector: 13965710

Service Connector: 19329822

Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13588062	J-35616-64B	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575796	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

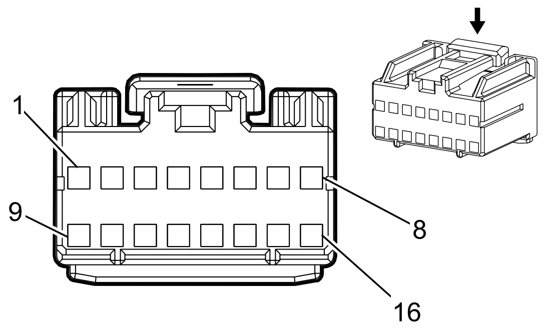
K71 Transmission Control Module (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/D-BU	4507	Transmission Clutch H Control	I	-
2	0.5	D-BU	6401	Clutch B Control	I	-
3	0.5	GY/L-GN	6403	Clutch D Control	I	-
4-6	-	-	-	Not Occupied	-	-
7	0.5	YE/L-GN	4170	Transmission Sensor B Voltage Reference 9V	I	-
8	0.5	YE/D-BU	4171	Transmission Sensor A Voltage Reference 9V	I	-
9-12	-	-	-	Not Occupied	-	-
13	0.5	L-GN/VT	4510	Transmission Intermediate Speed Signal	I	-
14	0.5	GY/D-BU	6358	Output Speed Signal	I	-
15	0.5	L-GN/YE	6353	Input Speed Signal	I	-
16	-	-	-	Not Occupied	-	-
17	0.5	WH	4508	Transmission Clutch G Control	I	-
18	0.5	BN	6400	Clutch A Control	I	-
19	0.5	GY	6402	Clutch C Control	I	-

20	0.5	YE/BN	6404	Clutch E Control	I	-
21	0.5	L-GN/WH	6380	TCC On/Off Solenoid A Control	I	-
22	0.5	YE/BN	6210	TCC On/Off Solenoid B Control	I	-
23-24	-	-	-	Not Occupied	-	-
25	0.5	BK/GY	3927	IMS Mode Switch Return	I	-
26-27	-	-	-	Not Occupied	-	-
28	0.5	BK/BN	586	Transmission Oil Temperature Sensor Low Reference	I	-
29-32	-	-	-	Not Occupied	-	-
33	0.75	L-GN/GY	6387	Transmission High Side Driver #1 Signal Driver	I	-
34	-	-	-	Not Occupied	-	-
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	-
36	-	-	-	Not Occupied	-	-
37	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
38	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
39-46	-	-	-	Not Occupied	-	-
47	0.5	GY/YE	4169	PRNDL S Signal	I	-
48	-	-	-	Not Occupied	-	-
49	0.75	GY/BN	6388	Transmission High Side Driver #2 Signal	I	-
50	-	-	-	Not Occupied	-	-
51	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	-
52	-	-	-	Not Occupied	-	-
53	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
54	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
55-58	-	-	-	Not Occupied	-	-
59	0.5	GY/WH	4168	PRNDL P Signal	I	-
60	0.5	WH/BK	5983	PRNDL C Signal	I	-
61	0.5	GY/BN	5982	PRNDL B Signal	I	-
62	0.5	VT/WH	5981	PRNDL A Signal	I	-
63	0.5	BN/WH	585	Transmission Oil Temperature Sensor Signal	I	-
64	-	-	-	Not Occupied	-	-
65	0.75	BK/WH	451	Signal Ground	II	-

66	0.75	RD/L-GN	1840	Battery Positive Voltage	II	-

K73 Telematics Communication Interface Control Module X1 (UE1)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15431362

Service Connector: 15306351

Description: 16-Way F Micro Pack 100A Series (NA)

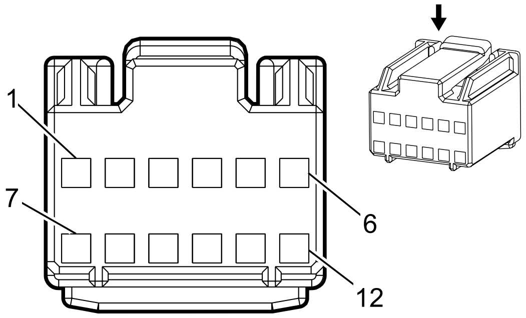
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575546	J-35616-16 (L-GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available

K73 Telematics Communication Interface Control Module X1 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
2	0.35	BN/WH	2517	Keypad Red LED	I	-
3	0.35	YE/VT	2516	Keypad Green LED	I	-
4-5	-	-	-	Not Occupied	-	-
6	0.35	L-GN/BK	2515	Keypad Supply Voltage	I	-
7	0.35	BK	2550	Ground	I	-
8-9	-	-	-	Not Occupied	-	-
10	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
11	0.35	L-GN/WH	2514	Keypad Signal	I	-
12	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
13-14	-	-	-	Not Occupied	-	-
15	0.35	RD/D-BU	3240	Battery Positive Voltage	I	-
16	-	-	-	Not Occupied	-	-

K73 Telematics Communication Interface Control Module X2 (UE1)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15431365

Service Connector: 88952886

Description: 12-Way F Micro Pack 100A Series (NA)

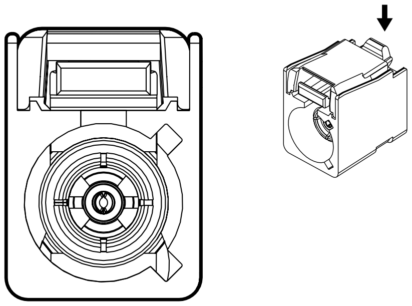
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575546	J-35616-16 (L-GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available

K73 Telematics Communication Interface Control Module X2 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	658	Cellular Telephone Voice Signal	I	-
2	0.35	BK/YE	659	Cellular Telephone Voice Low Reference	I	-
3	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
4	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
5	0.5	Bare	1792	Drain Wire	I	-
6	0.35	GY/YE	5149	Voice Recognition Audio Signal	I	-
7	0.35	WH/D-BU	5986	Serial Data Communication Enable	I	-
8	0.35	Bare	1782	Drain Wire	I	-
9	0.35	D-BU	655	Cellular Telephone Microphone Signal	I	-
10	0.35	BK/BN	654	Cellular Telephone Microphone Low Reference	I	-
11	-	-	-	Not Occupied	-	-
12	0.35	BK/GY	5152	Voice Recognition Audio Low Reference	I	-

K73 Telematics Communication Interface Control Module X5 (UE1 with CV3 or VV4)



Connector Part Information

Harness Type: Body COAX

OEM Connector: 13585574

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F Coax Type (PU)

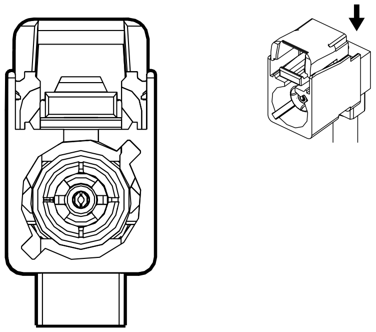
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K73 Telematics Communication Interface Control Module X5 (UE1 with CV3 or VV4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna Cell Phone Signal	I	—

K73 Telematics Communication Interface Control Module X7 (UE1 with CV3)



Connector Part Information

Harness Type: Body COAX

OEM Connector: 13585574

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F Coax Type (BU)

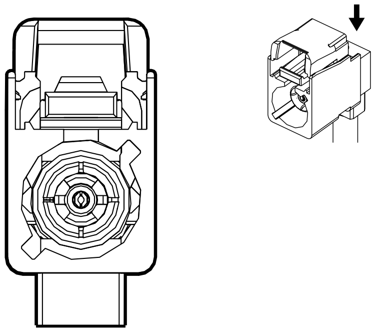
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K73 Telematics Communication Interface Control Module X7 (UE1 with CV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna GPS Signal	I	—

K73 Telematics Communication Interface Control Module X7 (UE1 with VV4 without CV3)



Connector Part Information

Harness Type: Body COAX

OEM Connector: 13591276

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F Coax Type (BN)

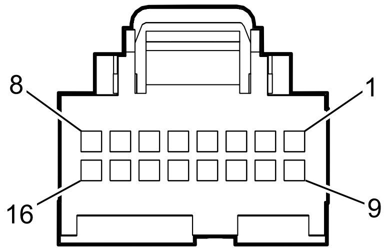
Terminal Part Information

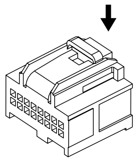
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K73 Telematics Communication Interface Control Module X7 (UE1 with VV4 without CV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna GPS Signal	I	—

K74 Human Machine Interface Control Module X1 (IO5 or IO6)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13819409

Service Connector: 13582576

Description: 16-Way F 0.64 OCS Series (BK)

Terminal Part Information

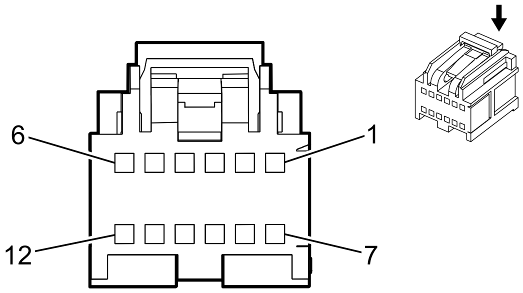
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13587581	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	19300660	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X1 (IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 0.35	GY/YE D-BU	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I	UE1 without UE1
2	0.35 0.35	BK/GY BK/BN	5152 654	Voice Recognition Audio Low Reference Cellular Telephone Microphone Low Reference	I	UE1 without UE1
3-4	-	-	-	Not Occupied	-	-
5	0.35	WH/D-BU	5986	Serial Data Communication Enable	I	-
6	-	-	-	Not Occupied	-	-
7	0.75	RD/VT	340	Battery Positive Voltage	I	-
8	0.75	BK	2550	Ground	I	-
9	0.5	L-GN/WH	7527	Linear Interconnect Network Bus 5	I	-
10	-	-	-	Not Occupied	-	-
11	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
12	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
13	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
14	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-

15-16	-	-	-	Not Occupied	-	-

K74 Human Machine Interface Control Module X2 (IO5 or IO6)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13782626

Service Connector: 19329259

Description: 12-Way F 0.64 OCS Series (GY)

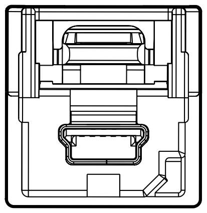
Terminal Part Information

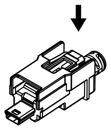
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13587581	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X2 (IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	3999	MOST Control	I	-
2	0.5	WH/L-GN	3997	MOST Serial Data (-)	I	-
3	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	GY/YE	6972	Camera Signal #2 +	I	-
6	0.35	WH/D-BU	6973	Camera Signal #2 –	I	-
7	-	-	-	Not Occupied	-	-
8	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
9	0.5	WH/L-GN	3997	MOST Serial Data (-)	I	-
10-12	-	-	-	Not Occupied	-	-

K74 Human Machine Interface Control Module X3 (IO5 or IO6)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13585557

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (GY)

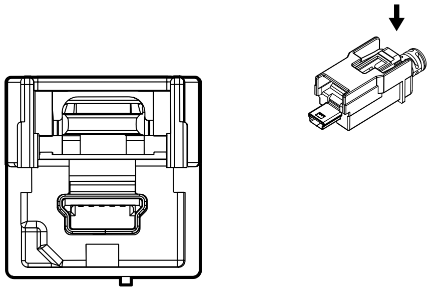
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X3 (IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

K74 Human Machine Interface Control Module X4 (IO5 or IO6)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13585554

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (GN)

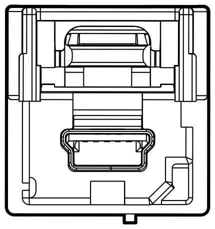
Terminal Part Information

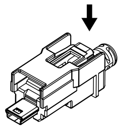
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X4 (IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

K74 Human Machine Interface Control Module X5 (IO5 or IO6)





Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13578154

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (BU)

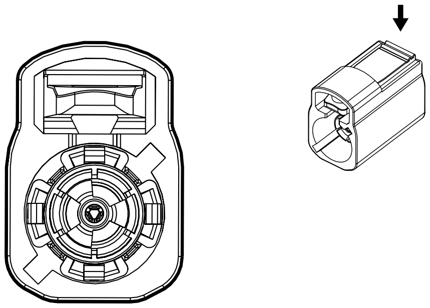
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X5 (IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Navigation Display Signal	I	—

K74 Human Machine Interface Control Module X7 (IO6)



Connector Part Information

Harness Type: COAX

OEM Connector: 13591270

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type (BU)

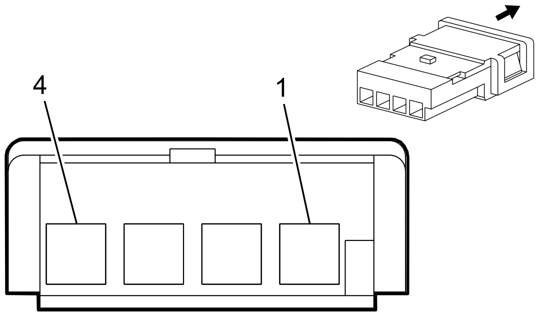
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X7 (IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna GPS Signal	I	—

K77 Remote Control Door Lock Receiver X1



Connector Part Information

Harness Type: Body

OEM Connector: 15363838

Service Connector: 13576534

Description: 4-Way F 0.64 Micro Quadlock Series (BK)

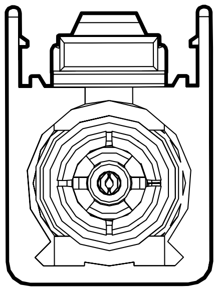
Terminal Part Information

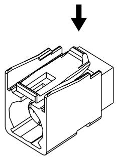
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K77 Remote Control Door Lock Receiver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	3273	Remote Function Actuator Return	I	-
2	0.35	YE/L-GN	3274	Remote Function Actuator Transmit Signal	I	-
3	0.35	D-BU/WH	3275	Remote Function Actuator Receive Signal	I	-
4	0.35	GY/WH	3272	Remote Function Actuator Supply Voltage	I	-

K77 Remote Control Door Lock Receiver X2





Connector Part Information

Harness Type: Body COAX

OEM Connector: 13583902

Service Connector: Service by Cable Assembly — See Parts Catalog

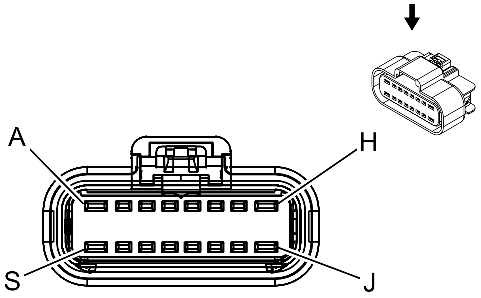
Description: 1-Way F Coax Type (OG)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K77 Remote Control Door Lock Receiver X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna RFA Signal	I	—



Connector Part Information

Harness Type: Chassis

OEM Connector: 15479301

Service Connector: 15306348

Description: 16-Way F 150, 280 GT Series, Sealed (BK)

Terminal Part Information

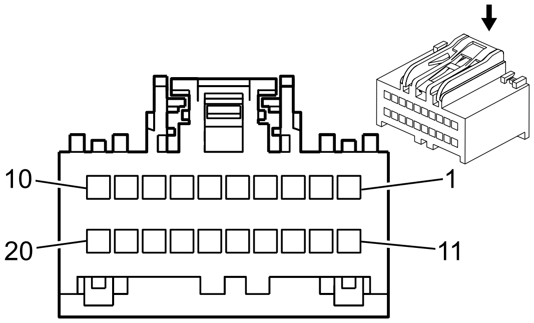
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575402	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13578912	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13578915	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K83 Parking Brake Control Module (J71)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	4	RD/WH	1642	Battery Positive Voltage	I	-
B	0.5	YE/RD	7683	Park Brake Release Switch Voltage Reference	II	-
C	0.5	D-BU/VT	1134	Park Brake Switch Signal	II	-
D	0.5	GY/RD	7684	Park Brake Apply Switch Voltage Reference	II	-
E	-	-	-	Not Occupied	-	-
F	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
G	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
H	4	BK	2150	Ground	I	-
K	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
L	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
M	-	-	-	Not Occupied	-	-
N	0.5	YE	1492	Park Brake Switch Supply Voltage	II	-
P	0.5	WH/D-BU	5986	Serial Data Communication Enable	II	-

R	0.5	BN	6107	Park Brake Apply Switch Signal	II	-
S	0.5	D-BU/BK	6108	Park Brake Release Switch Signal	III	-

K84 Keyless Entry Control Module X1 (ATH or BTM)



Connector Part Information

Harness Type: Body

OEM Connector: 15491305

Service Connector: 15126709

Description: 20-Way F USCAR 64 Series (BN)

Terminal Part Information

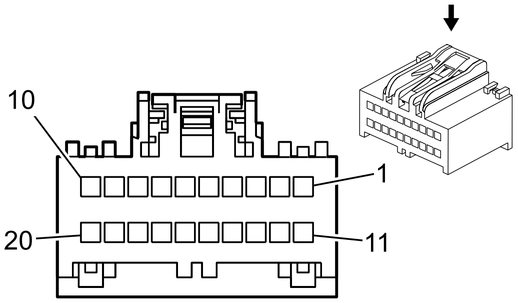
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K84 Keyless Entry Control Module X1 (ATH or BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN/VT	1601	Steering Column Lock Signal	I	-
2	0.5	RD/YE	4340	Battery Positive Voltage	I	-
3	0.35	L-GN	5060	Low Speed GMLAN Serial Data	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	VT/YE	4	Accessory Voltage	I	-
6	-	-	-	Not Occupied	-	-
7	0.35	GY/L-GN	4083	RAP Relay 2 Coil Control	I	-
8	-	-	-	Not Occupied	-	-
9	0.35	WH/YE	3574	Driver Door Open Switch Signal	I	-
10	0.35	YE/D-BU	4086	Pushbutton Start Challenge Active Signal	I	-
11	0.35	L-GN/BK	3558	Passive Start Switch Signal 2	I	-
12	0.35	BK/GY	3559	Passive Start Switch 2 Low Reference	I	-
13	0.35	VT/BK	3	Run/Crank Ignition 1 Voltage	I	-
14	0.5	BK/WH	2751	Signal Ground	I	-
15	0.35	GY/BK	3555	Passive Start Interior Antenna 2 Signal Lo	I	-

16	0.35	BN/BK	3552	Passive Start Interior Antenna 1 Signal Hi	I	-
17	0.35	WH	3553	Passive Start Interior Antenna 1 Signal Lo	I	-
18	0.35	WH/L-GN	3556	Passive Start Interior Antenna 3 Signal Hi	I	-
19	0.35	L-GN	3557	Passive Start Interior Antenna 3 Signal Lo	I	-
20	0.35	D-BU	3554	Passive Start Interior Antenna 2 Signal Hi	I	-

K84 Keyless Entry Control Module X2 (ATH or BTM)



Connector Part Information

Harness Type: Body

OEM Connector: 15491304

Service Connector: 15126710

Description: 20-Way F USCAR 64 Series (GY)

Terminal Part Information

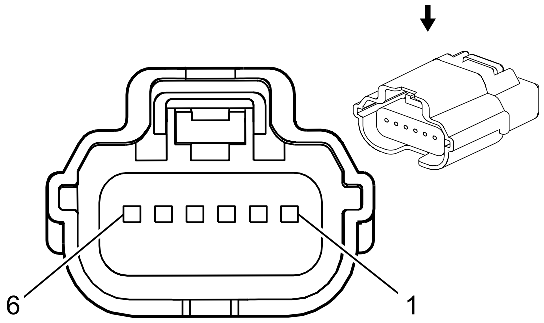
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K84 Keyless Entry Control Module X2 (ATH or BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	6158	Right Rear Door Handle Switch Signal	I	-
2	0.35	BN/YE	6157	Left Rear Door Handle Switch Signal	I	-
3-5	-	-	-	Not Occupied	-	-
6	0.35	VT	3560	Passive Entry Driver Door Antenna Signal Hi	I	-
7	0.35	VT/GY	3561	Passive Entry Driver Door Antenna Signal Lo	I	-
8	-	-	-	Not Occupied	-	-
9	0.35	L-GN/BK	3563	Passive Entry Co_Driver Door Antenna Signal Lo	I	-
10	-	-	-	Not Occupied	-	-
11	0.35	VT/WH	3571	Co_Driver Door Handle Switch Signal	I	-
12	0.35	L-GN/WH	3570	Driver Door Handle Switch Signal	I	-
13	0.5	YE/D-BU	5797	Rear Closure Handle Switch Open Signal	I	-
14-15	-	-	-	Not Occupied	-	-
16	0.5	BN/L-GN	3568	Passive Entry Rear Closure Antenna Signal Hi	I	-
17	-	-	-	Not Occupied	-	-
18	0.5	L-GN/GY	3569	Passive Entry Rear Closure Antenna Signal Lo	I	-

19	-	-	-	Not Occupied	-	-
20	0.35	L-GN/YE	3562	Passive Entry Co_Driver Door Antenna Signal Hi	I	-

K85 Passenger Presence Module



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 31404-6132

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Series, Sealed (BK)

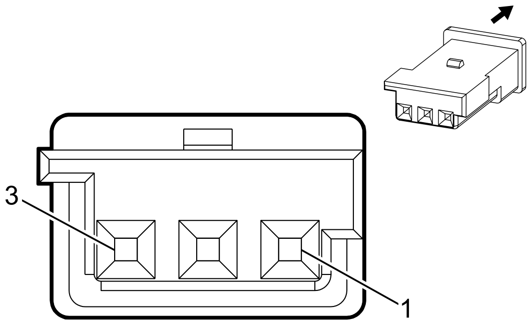
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K85 Passenger Presence Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/L-GN	4440	Battery Positive Voltage	I	-
2	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
3	-	-	-	Not Occupied	-	-
4	0.35	BK/WH	2751	Signal Ground	I	-
5	0.35	L-BU/RD	5612	Passenger Seat Belt Tension Sensor Voltage Reference	I	-
6	0.35	VT/OG	5611	Passenger Seat Belt Tension Sensor Signal	I	-

K89 Immobilizer Control Module (without BTM)



Connector Part Information

Harness Type: Steering Console

OEM Connector: 13604026

Service Connector: 13576530

Description: 3-Way F Micro Quadlock Series (PU)

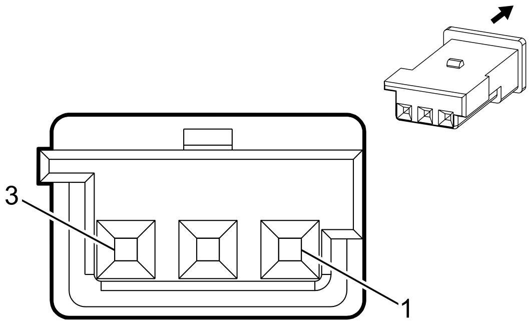
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575521	J-35616-64B (L-BU)	J-38125-12A	928999-5	15	H	H

K89 Immobilizer Control Module (without BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN/GY	3277	Vehicle Anti-Theft System Immobilizer Return	I	-
2	0.35	L-GN/VT	7533	Linear Interconnect Network Bus 11	I	-
3	0.35	GY/BK	3276	Vehicle Anti-Theft System Immobilizer Supply Voltage	I	-

K89 Immobilizer Control Module (BTM)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13604026

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F Micro Quadlock Series (PU)

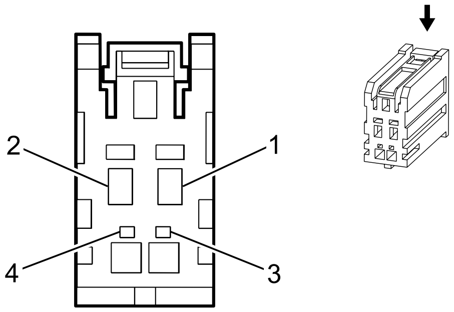
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K89 Immobilizer Control Module (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN/GY	3277	Vehicle Anti-Theft System Immobilizer Return	I	-
2	0.35	L-GN/VT	7533	Linear Interconnect Network Bus 11	I	-
3	0.35	GY/BK	3276	Vehicle Anti-Theft System Immobilizer Supply Voltage	I	-

K99 Steering Column Position Control Module X1 (N38)



Connector Part Information

Harness Type: Steering Column Tilt Motor Pigtail

OEM Connector: 19206654

Service Connector: Service by Component — See Part Catalog

Description: 4-Way F 0.64, 1.5 Series (GY)

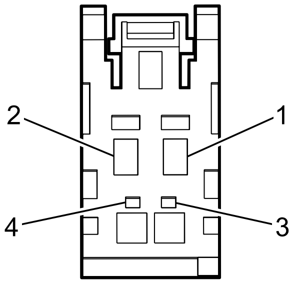
Terminal Part Information

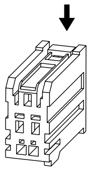
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K99 Steering Column Position Control Module X1 (N38)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN/GY	2112	Steering Column Tilt Motor Down Control	I	-
2	1	GY/VT	2111	Steering Column Tilt Motor Up Control	I	-
3	0.35	YE	2154	Steering Column Tilt Motor Return	I	-
4	0.35	WH/BK	2156	Steering Column Tilt Motor Signal	I	-

K99 Steering Column Position Control Module X2 (N38)





Connector Part Information

Harness Type: Steering Column Telescope Motor Pigtail

OEM Connector: 19206655

Service Connector: Service by Component — See Part Catalog

Description: 4-Way F 0.64, 1.5 Series (GN)

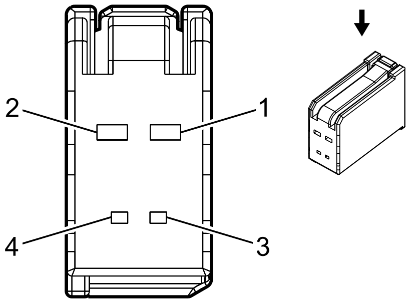
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K99 Steering Column Position Control Module X2 (N38)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BU/BK	2098	Steering Column Telescope Motor Forward	I	-
2	1	YE/BN	2110	Steering Column Telescope Motor Rearward	I	-
3	0.35	YE/BK	2152	Steering Column Telescope Motor Return	I	-
4	0.35	VT/GY	2153	Steering Column Telescope Motor Signal	I	-

K99 Steering Column Position Control Module X3 (N38)



Connector Part Information

Harness Type: Steering Column

OEM Connector: HSDPB-04-2FS

Service Connector: 19299685

Description: 4-Way F 0.64, 1.5 Series WH

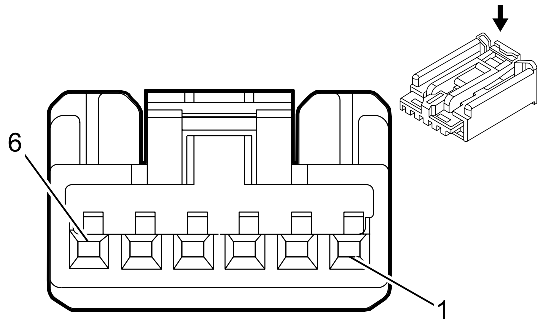
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K99 Steering Column Position Control Module X3 (N38)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	RD/VT	4640	Battery Positive Voltage	I	-
2	1	BK	1850	Ground	I	-
3	-	-	-	Not Occupied	-	-
4	0.35	L-GN/WH	7530	Linear Interconnect Network Bus 8	II	-

K99 Steering Column Position Control Module X4 (N38)



Connector Part Information

Harness Type: Tilt and Telescope Switch

OEM Connector: AIT2PB-06-1AK

Service Connector: 19167753

Description: 6-Way F 0.64 Kaizen Series BK

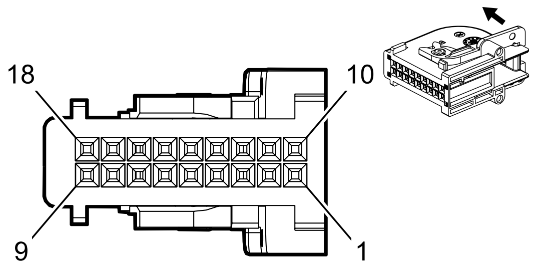
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K99 Steering Column Position Control Module X4 (N38)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1550	Ground	I	-
2	0.35	RD	2094	Steering Column Tilt and Telescope Forward Switch Signal	I	-
3	0.35	WH	2095	Steering Column Tilt and Telescope Rearward Switch Signal	I	-
4	0.35	GN	2096	Steering Column Tilt and Telescope Up Switch Signal	I	-
5	0.35	YE	2097	Steering Column Tilt and Telescope Down Switch Signal	I	-
6	-	-	-	Not Occupied	-	-

K101 Trailer Interface Control Module X1 (VQ9)



Connector Part Information

Harness Type: Body

OEM Connector: 13292663

Service Connector: 19119427

Description: 18-Way F 0.64 Series (WH)

Terminal Part Information

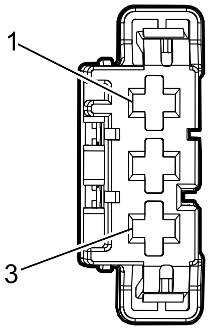
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

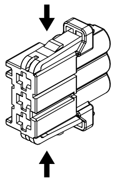
K101 Trailer Interface Control Module X1 (VQ9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	5060	Low Speed GMLAN Serial Data	I	-
2	0.75	YE/GY	5187	Right Trailer Turn Signal Lamp Control	I	-
3	-	-	-	Not Occupied	-	-
4	0.75	BN/GY	5184	Left Trailer Park Lamp Control	I	-
5	0.75	BN/YE	5188	Trailer Brake Lamp Control	I	-
6	-	-	-	Not Occupied	-	-
7	0.75	GN/WH	5189	Trailer Backup Lamp Control	I	-
8	0.75	YE/WH	5190	Trailer Fog Lamp Control	I	-
9	-	-	-	Not Occupied	-	-
10	0.75	BN/YE	5188	Trailer Brake Lamp Control	I	-
11	-	-	-	Not Occupied	I	-
12	0.75	GN/BU	5992	Trailer Connected Signal	I	-
13	0.5	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	-
14	0.5	VT/WH	5065	Stop Lamp Relay Coil Control	I	-
15	-	-	-	Not Occupied	-	-

16	0.75	GY	5185	Right Trailer Park Lamp Control	I	-
17	0.75	BU/WH	5186	Left Trailer Turn Signal Lamp Control	I	-
18	-	-	-	Not Occupied	-	-

K101 Trailer Interface Control Module X2 (VQ9)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15404424

Service Connector: 13314094

Description: 3–Way F 2.8 MCP Series, Sealed (BK)

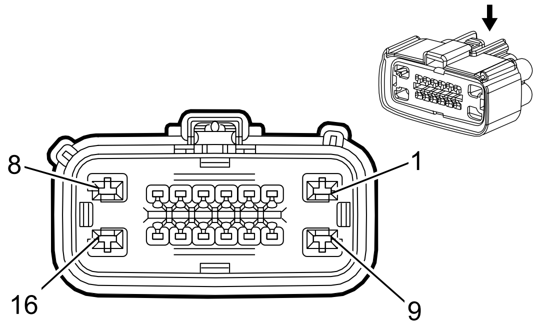
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K101 Trailer Interface Control Module X2 (VQ9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1450	Ground	I	-
2	-	-	-	Not Occupied	-	-
3	2.5	RD/GY	6240	Battery Positive Voltage	I	-

K111 Fuel Pump Driver Control Module



Connector Part Information

Harness Type: Chassis

OEM Connector: 15500308

Service Connector: 19329927

Description: 16-Way F 1.5, 2.8 Series, Sealed

Terminal Part Information

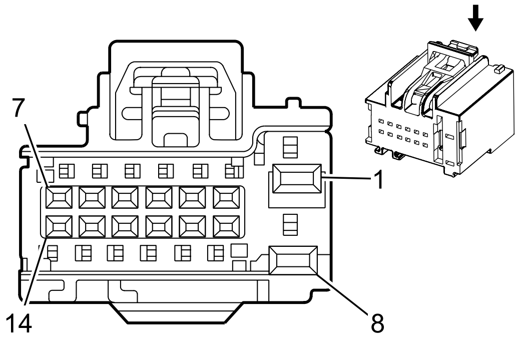
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13581359	J-35616-35 (VT)	J-38125-12A	1326030-8	17	4	D
II	13575809	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	13575808	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K111 Fuel Pump Driver Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/VT	1940	Battery Positive Voltage	I	-
2	0.5	GY	5660	Fuel Pump Controller Data Out Signal	II	-
3	-	-	-	Not Occupied	-	-
4	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)(3)	II	-
5	0.5	WH	7494	High Speed GMLAN Serial Data (-)(3)	II	-
6	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage	II	-
7	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	-
8	2.5	GY	120	Fuel Pump Supply Voltage	I	-
9	2.5	BK	2150	Ground	I	-
10	-	-	-	Not Occupied	-	-
11	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)(3)	II	-
12	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)(3)	II	-
13	0.5	WH	7494	High Speed GMLAN Serial Data (-)(3)	II	-

14	0.5	WH	7494	High Speed GMLAN Serial Data (-)(3)	II	-
15	0.5	D-BU	7444	Fuel System Control Module Shield	II	-
16	2.5	BK/L-GN	1580	Fuel Pump Low Reference	I	-

K124 Active Safety Control Module X1 (UGN with Z75)



Connector Part Information

Harness Type: Body

OEM Connector: 13601512

Service Connector: 89047362

Description: 14-Way F 0.64, 1.5 Series (BK)

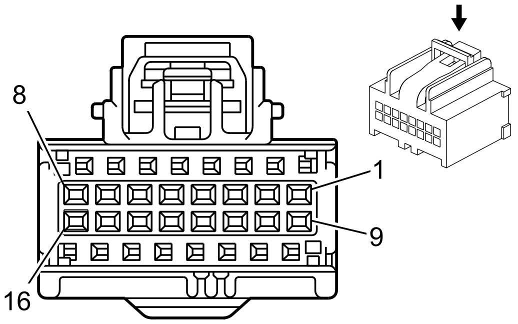
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575479	J-35616-2A (GY)	J-38125-553	12191812	19	C	A
II	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	13327109	J-35616-2A (GY)	J-38125-553	12191812	19	E	C

K124 Active Safety Control Module X1 (UGN with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/L-GN	3140	Battery Positive Voltage	I	-
2	0.35	L-GN/BN	5852	Rear Park Assist LED Disable Signal	II	UD5 or UD7
3	0.35	WH	3152	Lane Departure Warning Indicator Control	II	UD5 or UD7
4-5	-	-	-	Not Occupied	-	-
6	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
7	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
8	0.5	BK/WH	2751	Signal Ground	III	-
9	0.35	GY/VT	3808	Front Object Sensor Supply Voltage (2)	II	-
10	0.35	BN/VT	3809	Front Object Sensor Supply Voltage (1)	II	UVZ
11	0.35	GY/L-GN	2555	Rear Park Assist Disable Signal	II	UD5 or UD7
12	0.35	WH/D-BU	5986	Serial Data Communication Enable	II	-
13	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
14	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-

K124 Active Safety Control Module X2 (UGN with Z75)



Connector Part Information

Harness Type: Body

OEM Connector: 15491285

Service Connector: 15136073

Description: 16-Way F Kaizen 64 Series (BK)

Terminal Part Information

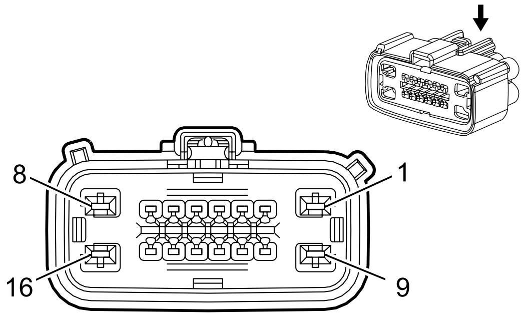
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K124 Active Safety Control Module X2 (UGN with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
2	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
3	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
4	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
5	-	-	-	Not Occupied	-	-
6	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
7	0.35	L-GN	5060	Low Speed GMLAN Serial Data	I	-
8	-	-	-	Not Occupied	-	-
9	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
10	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
11	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
12	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
13	-	-	-	Not Occupied	-	-
14	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
15	-	-	-	Not Occupied	-	-

16	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	-

K133 Trailer Brake Power Control Module (JL1)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13991106

Service Connector: 19329472

Description: 16-Way F 1.5, 2.8 Series, Sealed (D-GY)

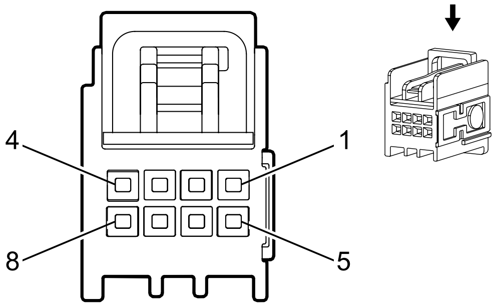
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13581359	J-35616-35 (VT)	J-38125-12A	1326030-8	17	4	D
II	13575809	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K133 Trailer Brake Power Control Module (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/L-GN	242	Battery Positive Voltage	I	-
2	0.5	WH/BK	2223	Trailer Brake Control Signal	II	-
3-4	-	-	-	Not Occupied	-	-
5	0.5	YE/BK	2224	Trailer Brake Enable Signal	II	-
6-7	-	-	-	Not Occupied	-	-
8	2.5	D-BU	47	Trailer Auxiliary Supply Voltage	I	-
9	2.5	BK	1750	Ground	I	-
10-11	-	-	-	Not Occupied	-	-
12	0.5	GY	2225	Trailer Brake Current Feedback Signal	II	-
13	-	-	-	Not Occupied	-	-
14	0.5	D-BU	47	Trailer Auxiliary Supply Voltage	II	-
15-16	-	-	-	Not Occupied	-	-

K134D Seat Bolster Memory Control Module - Driver (ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 13235933

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 Series (BK with BK cover)

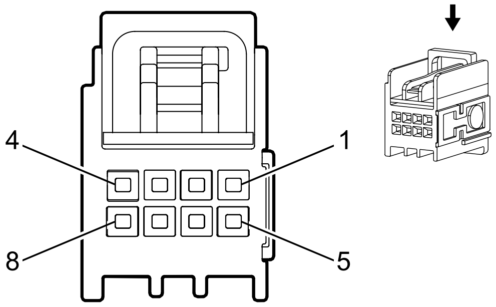
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K134D Seat Bolster Memory Control Module - Driver (ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/BN	2240	Battery Positive Voltage	I	-
2	0.35	L-GN/GY	3758	Linear Interconnect Network Bus 13	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	BK	1150	Ground	I	-
5-6	-	-	-	Not Occupied	-	-
7	0.5	VT	901		I	-
8	0.5	L-GN	903		I	-

K134P Seat Bolster Memory Control Module - Passenger (ULT)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 13235933

Service Connector: 13576543

Description: 8-Way F 0.64 Series (BK with BK cover)

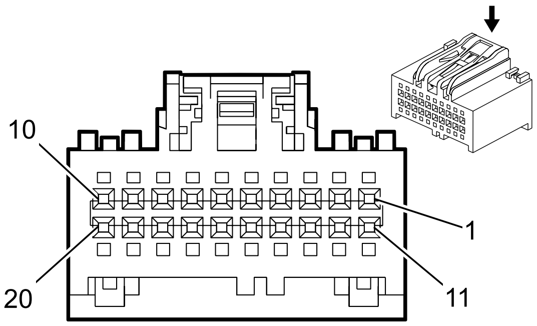
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K134P Seat Bolster Memory Control Module - Passenger (ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	2240	Battery Positive Voltage	I	-
2	0.35	L-GN/GY	3758	Linear Interconnect Network Bus 13	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	BK	1250	Ground	I	
5-6	-	-	-	Not Occupied	-	-
7	0.5	VT	901	Bolster Pump Control	I	-
8	0.5	L-GN	903	Bolster Pump Control	I	-

K157 Video Processing Control Module X1 (UVH)



Connector Part Information

Harness Type: Body

OEM Connector: 15489824

Service Connector: 15126711

Description: 20-Way F 0.64 Series (BK with WH Terminal Position Assurance)

Terminal Part Information

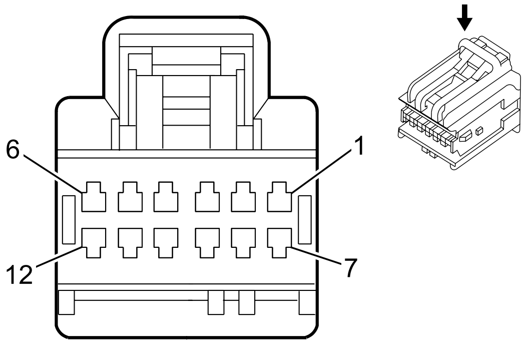
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K157 Video Processing Control Module X1 (UVH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU	3373	Auxiliary Video High Signal (2)	I	-
2	0.35	BK/WH	2551	Signal Ground	I	-
3	0.35	BK/WH	2551	Signal Ground	I	-
4	0.35 0.35	WH D-BU	7641 7641	Camera Rear Vision Signal + Camera Rear Vision Signal +	I	-
5	0.35	WH/L-GN	2628	Left Side Vision Camera Video Signal (+)	I	-
6	0.35	BK/WH	2551	Signal Ground	I	-
7	0.35	BK/WH	2551	Signal Ground	I	-
8	0.35 0.35	WH/D-BU WH/D-BU	2627 2627	Right Side Vision Camera Video Signal (+)	I	-
9-10	-	-	-	Not Occupied	-	-
11	0.35	GY	3372	Auxiliary Video Low Signal (2)	I	-
12	0.35	WH/BN	6201	Camera Supply Voltage	I	-
13	0.35	WH/BN	6201	Camera Supply Voltage	I	-
14	0.35 0.35	D-BU WH	7642 7642	Camera Rear Vision Signal (-) Camera Rear Vision Signal (-)	I	-

15	0.35	GY/L-GN	2625	Left Side Vision Camera Video Signal (-)	I	-
16	0.5	WH/BN	6201	Camera Supply Voltage	I	-
17	0.5	WH/BN	6201	Camera Supply Voltage	I	-
18	0.35	GY/D-BU	2626	Right Side Vision Camera Video Signal (-)	I	-
19-20	-	-	-	Not Occupied	-	-

K157 Video Processing Control Module X2 (UVH)



Connector Part Information

Harness Type: Body

OEM Connector: 13551678

Service Connector: 89047364

Description: 12-Way F 0.64 Series (BK)

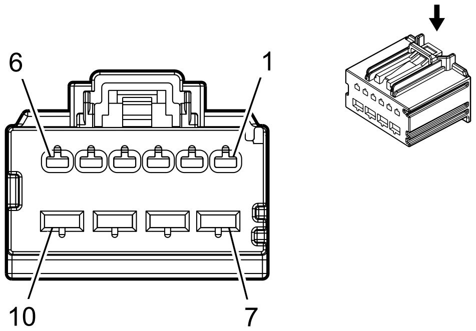
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19329829	J-35616-16 (LT GN)	J-38125-213	Not Available	Not Available	Not Available	Not Available

K157 Video Processing Control Module X2 (UVH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	VT/L-GN RD/VT	1739 1640	Run/Crank Ignition 1 Voltage Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
4-5	-	-	-	Not Occupied	-	-
6	0.35	GY/YE	6972	Camera Signal #2 +	I	-
7	0.35	BK	2550	Ground	I	-
8-10	-	-	-	Not Occupied	-	-
11	0.35	Bare	6974	Camera Drain Wire	I	-
12	0.35	WH/D-BU	6973	Camera Signal #2	I	-

K169 Folding Seat Control Module - 3rd Row X1 (AS8)



Connector Part Information

Harness Type: 3rd Row Seat Left

OEM Connector: 31372-1100

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5, 2.8 Series (GY)

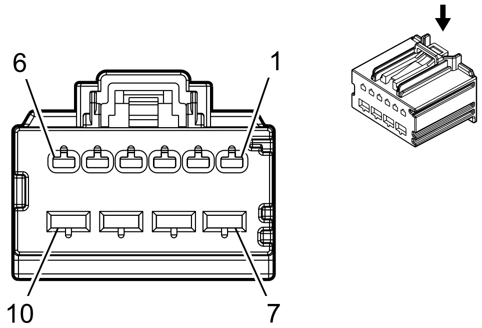
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

K169 Folding Seat Control Module - 3rd Row X1 (AS8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN	4226	RH Third Row Seat Recline Rearward Lock Actuator Control	II	-
2	1.5	RD/GY	4225	RH Third Row Seat Recline Forward Lock Actuator Control	II	-
3	0.35	YE/L-BU	4214	LH Third Row Seat Recine Positon Sensor Signal	II	-
4	0.35	BN/WH	4216	Seat Sensor Voltage Reference #1	II	-
5	0.35	WH/RD	4213	RH Third Row Seat Recine Positon Sensor Signal	II	-
6	-	-	-	Not Occupied	-	-
7	1.5	OG	4218	RH Third Row Seat Recline Rearward Control	I	-
8	1.5	L-BU	4217	RH Third Row Seat Recline Motor Forward Control	I	-
9	0.35	WH/BK	4215	Seat Sensor Voltage Reference #2	I	-
10	2.5	BK	1150	Ground	I	-

K169 Folding Seat Control Module - 3rd Row X2 (AS8)



Connector Part Information

Harness Type: 3rd Row Seat Left

OEM Connector: 31372-1000

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5, 2.8 Series (BK)

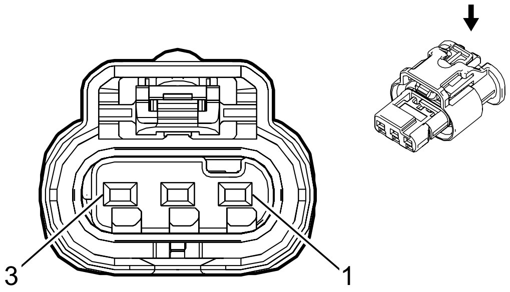
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

K169 Folding Seat Control Module - 3rd Row X2 (AS8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	4220	RH Third Row Seat Recline Rearward Signal	I	-
2	0.5	YE/BK	4219	Right Rear Seat Fold Tumble Signal	I	-
3	0.5	L-GN	4224	LH Third Row Seat Recline Rearward Signal	I	-
4	0.5	L-GN/BK	4223	LH Third Row Seat Recline Forward Signal	I	-
5	1.5	YE/WH	4228	LH Third Row Seat Recline Rearward Lock Actuator Control	I	-
6	1.5	GY	4227	LH Third Row Seat Recline Forward Lock Actuator Control	I	-
7	2.5	RD/L-BU	1240	Battery Positive Voltage	II	-
8	-	-	-	Not Occupied	-	-
9	1.5	RD	4221	LH Third Row Seat Recline Motor Forward Control	II	-
10	-	-	-	Not Occupied	-	-

K171 Hands-Free Liftgate Sensor Control Module X1 (TC2)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13868589

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 1.2 Multiple Contact Point Series, Sealed (BN)

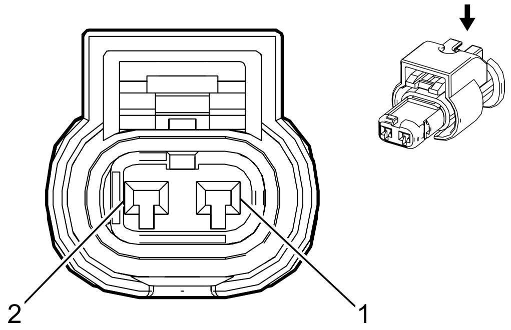
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K171 Hands-Free Liftgate Sensor Control Module X1 (TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/BN	4118	Linear Interconnect Network Bus 18	I	-
2	0.5	RD/L-GN	3140	Battery Positive Voltage	I	-
3	0.5	BK	1450	Ground	I	-

K171 Hands-Free Liftgate Sensor Control Module X2 (TC2)



Connector Part Information

Harness Type: Hands-Free Liftgate Upper Sensor Pigtail

OEM Connector: 13927762

Service Connector: 19299928

Description: 2-Way F 1.2 MCP Series, Sealed (BK with NA Inner Connector)

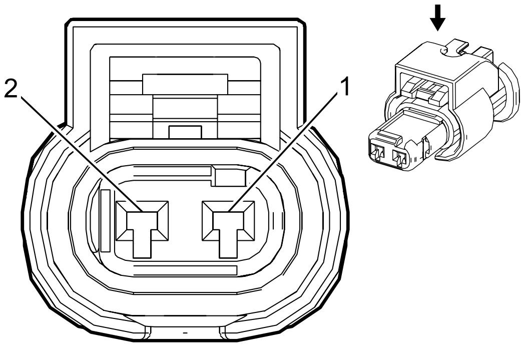
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K171 Hands-Free Liftgate Sensor Control Module X2 (TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	-	-	I	-
2	0.5	GN	-	-	I	-

K171 Hands-Free Liftgate Sensor Control Module X3 (TC2)



Connector Part Information

Harness Type: Hands-Free Liftgate Lower Sensor Pigtail

OEM Connector: 13927761

Service Connector: 19300402

Description: 2-Way F 1.2 MCP Series, Sealed (BK with BK Inner Connector)

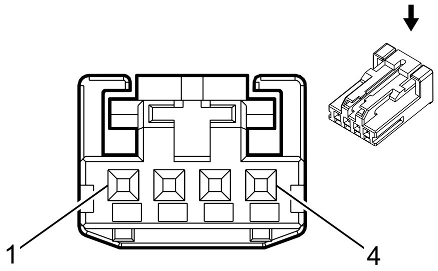
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

K171 Hands-Free Liftgate Sensor Control Module X3 (TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	-	-	I	-
2	0.5	GN	-	-	I	-

K175 Center Console Compartment Cooler Control Module (DCK)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13969166

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (BK)

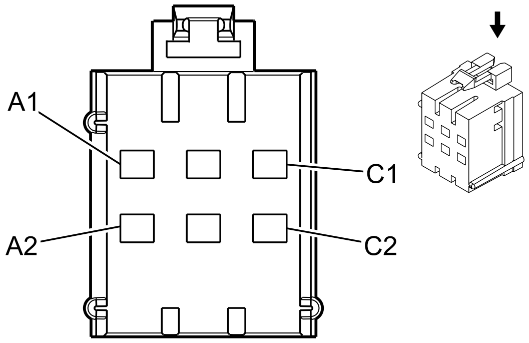
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

K175 Center Console Compartment Cooler Control Module (DCK)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1050	Ground	I	-
2	0.35	BN	6532	Compartment Cooler Control Signal	I	-
3	0.35	GY/BK	2546	Compartment Cooler Indicator Control	I	-
4	0.5	VT/BK	739	Run/Crank Ignition 1 Voltage	I	-

KR58 Roof Beacon Relay (TRW)



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 12110541

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 280 Metri Pack Series, Flexlock (BK)

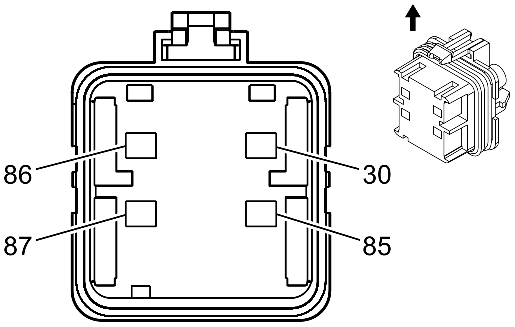
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

KR58 Roof Beacon Relay (TRW)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	BK	1050	Ground	I	-
A2	2.5	L-GN/D-BU	5989	Emergency Lamp Relay Contact Control	I	-
B1–B2	-	-	-	Not Occupied	-	-
C1	2.5	RD/L-GN	3140	Battery Positive Voltage	I	-
C2	0.5	WH/BK	5990	Emergency Lamp Switch Signal	I	-

KR79 Auxiliary Battery Relay 2 (5W4 or 9C1)



Connector Part Information

Harness Type: Battery Auxiliary

OEM Connector: 12129716

Service Connector: 15306045

Description: 4–Way F, 280 Metri-Pack Series, Flexlock, Sealed (GY)

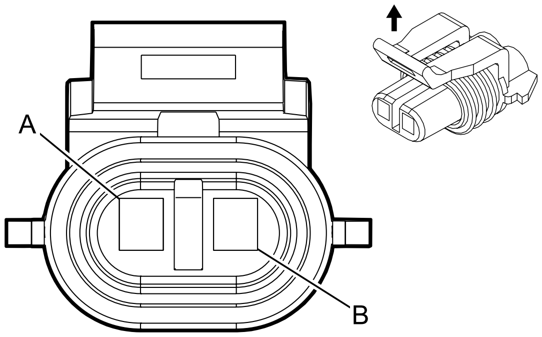
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

KR79 Auxiliary Battery Relay 2 (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	0.5	RD/BU	4540	Battery Positive Voltage	I	-
85	0.5	BK	550	Ground	I	-
86	0.5	VT/BN	300	Run Ignition 3 Voltage	I	-
87	0.5	RD/BU	4540	Battery Positive Voltage	I	-

KR81 Auxiliary Battery Relay 1 X1 (5W4 or 9C1)



Connector Part Information

Harness Type: Battery Auxiliary

OEM Connector: 12052641

Service Connector: 13586114

Description: 2–Way F, 150 Metri-Pack Series (BK)

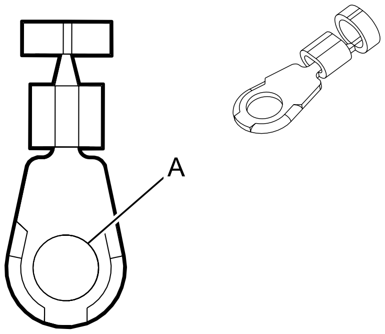
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

KR81 Auxiliary Battery Relay 1 X1 (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD/BU	4540	Battery Positive Voltage	I	-
B	0.5	BK	550	Ground	I	-

KR81 Auxiliary Battery Relay 1 X2 (5W4 or 9C1)



Connector Part Information

Harness Type: Battery Auxiliary

OEM Connector: 00012131

Service Connector: Service by Harness - See Part Catalog

Description: Ring Terminal

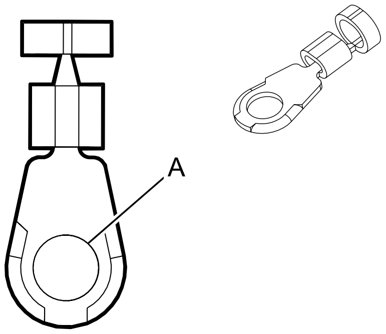
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness — See Part Catalog	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

KR81 Auxiliary Battery Relay 1 X2 (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD/VT	842	Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (5W4 or 9C1)



Connector Part Information

Harness Type: Battery Auxiliary

OEM Connector: 00012131

Service Connector: Service by Harness - See Part Catalog

Description: Ring Terminal

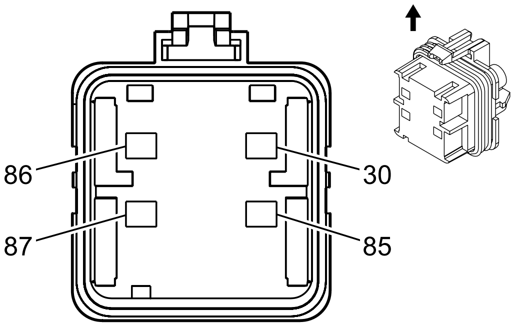
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness — See Part Catalog	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

KR81 Auxiliary Battery Relay 1 X3 (5W4 or 9C1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	16	RD/GN	742	Battery Positive Voltage	I	—

KR98 Vehicle Level Control Compressor Relay (Z85 or Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 12129716

Service Connector: 15306045

Description: 4-Way F 280 Metri Pack Series, Flexlock, Sealed (GY)

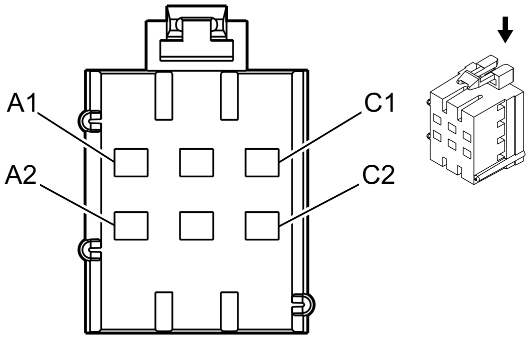
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

KR98 Vehicle Level Control Compressor Relay (Z85 or Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	2.5	RD/D-BU	1842	Battery Positive Voltage	I	-
85	0.5 0.5	BN/YE BK	1112 1750	Damping Relay Coil Control Ground	I	Z85 Z95
86	0.5 0.5	VT/BK VT/D-BU	739 5956	Run/Crank Ignition 1 Voltage Leveling Compressor Relay Coil Supply Voltage	I	Z85 Z95
87	2.5	WH/PU	2248	Real Time Damping Leveling Motor Supply Voltage	I	-

KR103 DVD Relay (AYE)



Connector Part Information

Harness Type: Accessory Power Harness

OEM Connector: 12129715

Service Connector: 12129715

Description: 6-Way F Metri-Pack 280 Series (GY)

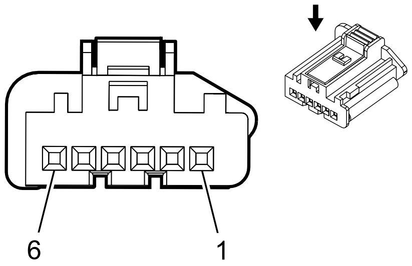
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

KR103 DVD Relay (AYE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	-	BK	-	Ground	I	-
A2	-	RD	-	Battery Positive Voltage	I	-
B1 — B2	-	-	-	Not Occupied	-	-
C1	-	PU	-	Battery Positive Voltage	I	-
C2	-	YE	-	Accessory Voltage	I	-

M4 Air Inlet Door Actuator



Connector Part Information

Harness Type: HVAC Jumper

OEM Connector: 12759936

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Micro Quadlock Series (BK)

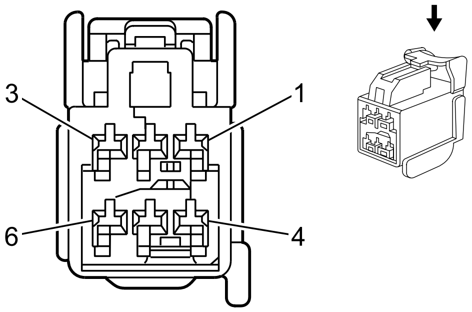
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M4 Air Inlet Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/YE	1791	Air Temperature Door Control Low Reference	I	-
2	0.35	VT/GN	1838	Recirculation Door Position Signal	I	-
3	0.35	GY/RD	598	5 Volt Reference	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	GN	1614	Recirculation Door Control	I	-
6	0.35	YE/BK	2274	Recirculation Door Control	I	-

M5 Adjustable Pedal Motor (JF4)



Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 10846805

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 Kaizen Series (L-GY)

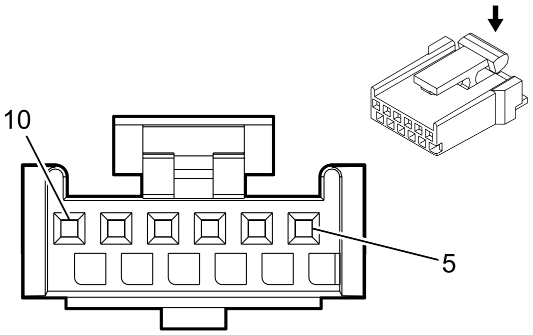
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M5 Adjustable Pedal Motor (JF4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/VT	5130	Adjustable Pedal Actuator Forward Control	I	-
2	0.5	D-BU	5952	Adjustable Pedal Position Sensor Brake Signal	I	-
3	0.5	BK/GY	6206	Memory Sensor Low Reference	I	A45
4	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	I	-
5	0.5	WH/RD	6207	Memory Sensor High Reference	I	A45
6	-	-	-	Not Occupied	-	-

M6B Air Temperature Door Actuator - Auxiliary



Connector Part Information

Harness Type: Auxiliary HVAC

OEM Connector: 2035363-3

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BK)

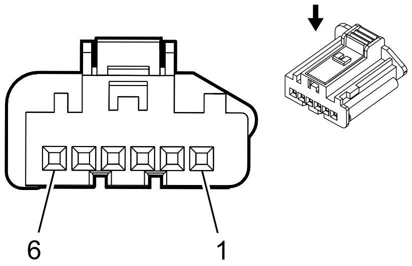
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M6B Air Temperature Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	2275	Air Temperature Door Control	I	-
2	0.35	GY	2614	Air Temperature Door Control	I	-
3	—	—	—	Not Occupied	—	—
4	0.35	BK/YE	407	Sensor Low Reference	I	-
5	0.35	GY/BU	2145	Passenger Air Temperature Switch Signal	I	-
6	0.35	GY/RD	598	5 Volt Reference	I	-

M6L Air Temperature Door Actuator - Left



Connector Part Information

Harness Type: HVAC Jumper

OEM Connector: 12759936

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Micro Quadlock Series (BK)

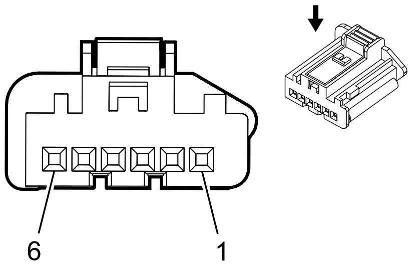
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M6L Air Temperature Door Actuator - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/YE	1791	Air Temperature Door Control Low Reference	I	-
2	0.35	BU/YE	733	Air Temperature Door Position Signal	I	-
3	0.35	GY/RD	598	5 Volt Reference	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	BU/BN	1199	Air Temperature Door Control	I	-
6	0.35	GY/GN	2210	Air Temperature Door Control	I	-

M6R Air Temperature Door Actuator - Right



Connector Part Information

Harness Type: HVAC Jumper

OEM Connector: 12759936

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Micro Quadlock Series (BK)

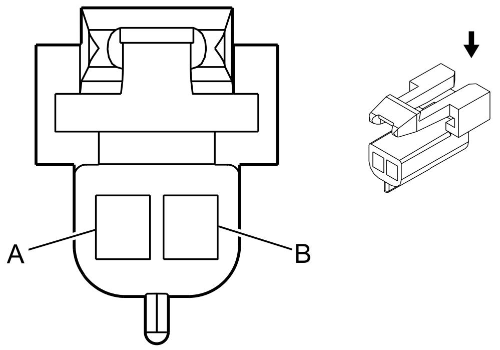
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	Pending	Pending	Not Available	Not Available	Not Available	Not Available

M6R Air Temperature Door Actuator - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/YE	1791	Air Temperature Door Control Low Reference	I	-
2	0.35	BN/BU	1646	Passenger Air Temperature Door Position Signal	I	-
3	0.35	GY/RD	598	5 Volt Reference	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	WH/BK	1236	Passenger Air Temperature Door Control	I	-
6	0.35	GY/BK	2778	Passenger Air Temperature Motor Control	I	-

M7 Transmission Shift Lock Control Solenoid Actuator



Connector Part Information

Harness Type: Steering Column

OEM Connector: 12052832

Service Connector: 13583033

Description: 2-Way F Metri Pack 150 Series (BK)

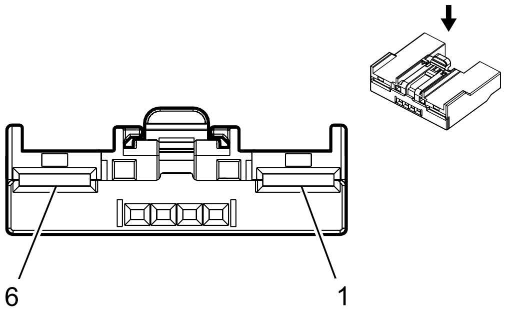
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M7 Transmission Shift Lock Control Solenoid Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE	816	Brake Transmission Shift Interlock Solenoid Control	I	-
B	0.35	BK/WH	1851	Ground	I	-

M8 Blower Motor



Connector Part Information

Harness Type: HVAC Jumper

OEM Connector: 13582015

Service Connector: 19260815

Description: 6-Way F 0.64 GET, 6.3 Series (BK)

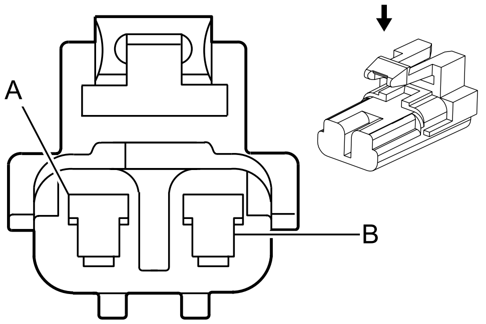
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	J-38125-11A	7116-4122-02	10	D	G
II	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available

M8 Blower Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD/VT	542	Battery Positive Voltage	I	-
2	0.5	D-BU/GY	754	Blower Motor Speed Control	II	-
3-5	-	-	-	Not Occupied	-	-
6	4	BK	1850	Ground	I	-

M8B Blower Motor Auxiliary (without SWB)



Connector Part Information

Harness Type: Auxiliary HVAC

OEM Connector: 12084957

Service Connector: 12126461

Description: 2-Way F 280 Metri Pack Series (BK)

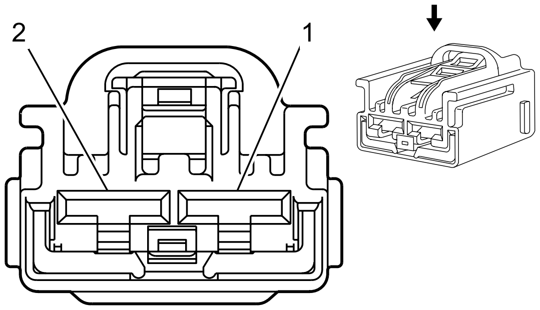
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M8B Blower Motor Auxiliary (without SWB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	OG	5988	Rear Blower Motor Low Reference	I	-
2	2.5	RD/BU	101	Blower Motor Control	I	-

M8B Blower Motor Auxiliary (SWB)



Connector Part Information

Harness Type: Auxiliary HVAC

OEM Connector: 15226103

Service Connector: 88988507

Description: 2–Way F, 6.3 Series (L-GY)

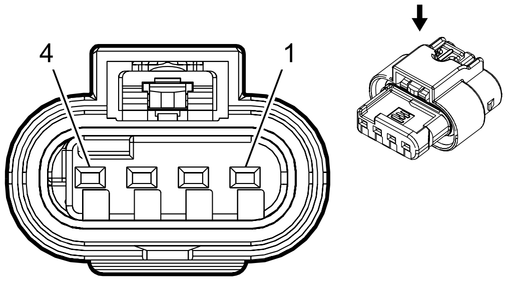
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M8B Blower Motor Auxiliary (SWB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU/BK	5988	Rear Blower Motor Low Reference	I	-
2	2.5	GY/BN	101	Blower Motor Control	I	-

M26 Front Axle Engagement Actuator (NP0 or NQH)



Connector Part Information

Harness Type: Front Axle Jumper

OEM Connector: 13817132

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

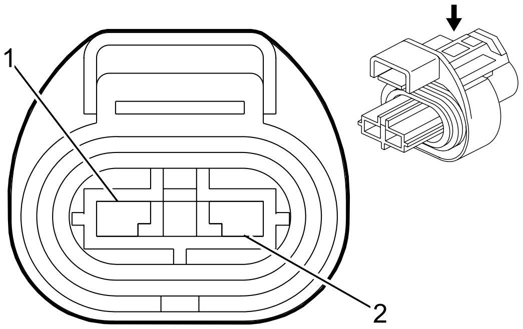
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M26 Front Axle Engagement Actuator (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	-
2	0.5	GY/BK	1570	Front Axle Actuator Control	I	-
3	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator	I	-
4	0.5	BK	550	Ground	I	-

M27 Fuel Door Unlatch Actuator (N08)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13548106

Service Connector: 13314083

Description: 2-Way F 1.2 Timer Series, Sealed (BK)

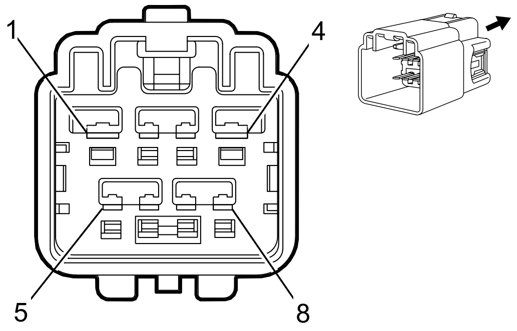
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M27 Fuel Door Unlatch Actuator (N08)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	-
2	0.75	GY	5911	Door Lock Actuator Lock Control 2	I	-

M31 Liftgate Motor (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 10847005

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way M 1.5, 2.8 Kaizen Series (L-GY)

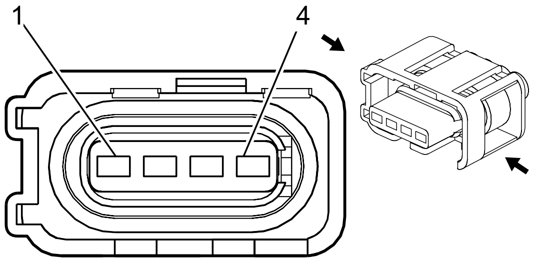
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M31 Liftgate Motor (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/WH	5799	Lift Gate Open/Close Motor Close Control	I	-
2	0.35	BN/RD	5803	Lift Gate Position Sensor Voltage Reference	I	-
3	0.35	BK/L-GN	5804	Lift Gate Position Sensor Low Reference	I	-
4	0.35	BK/D-GN	5804	Lift Gate Position Sensor Low Reference	I	-
5	0.35	BN/YE	5806	Lift Gate Position Sensor Signal (2)	I	-
6	0.35	D-BU/WH	5805	Lift Gate Position Sensor Signal (1)	I	-
7	0.35	D-BU/WH	5805	Lift Gate Position Sensor Signal (1)	I	-
8	0.35	BN/YE	5806	Lift Gate Position Sensor Signal (2)	I	-

M33 Liftgate Window Latch Assembly



Connector Part Information

Harness Type: Liftgate

OEM Connector: 15489983

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F Timer Micro Pack III Series, Sealed (NA)

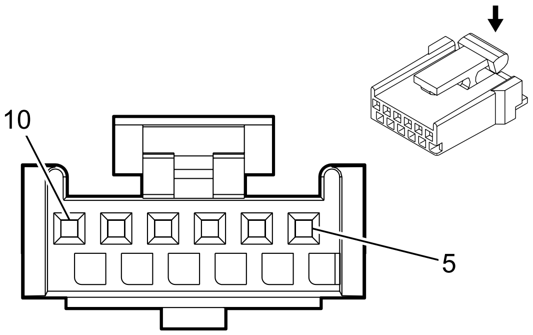
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

M33 Liftgate Window Latch Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/YE	6795	Lift Glass/Trunk Motor Release Control 2	I	-
2	0.5	BK	1450	Ground	I	-
3	0.35	BK	1450	Ground	I	-
4	0.35	VT/GY	1303	Lift Gate Ajar Switch Signal (1)	I	-

M37B Mode Door Actuator - Auxiliary



Connector Part Information

Harness Type: Auxiliary HVAC

OEM Connector: 2035363-3

Service Connector: Service by Harness — See Part Catalog

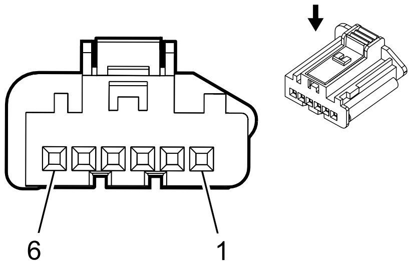
Description: 6-Way F (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M37B Mode Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/OG	5279	Mode Door Control	I	-
2	0.35	BK/GN	5730	Mode Door Control	I	-
3	—	—	—	Not Occupied	—	—
4	0.35	BK/YE	407	Sensor Low Reference	I	-
5	0.35	GY	2599	Rear Mode Motor Signal	I	-
6	0.35	GY/RD	598	5 Volt Reference	I	-



Connector Part Information

Harness Type: HVAC Jumper

OEM Connector: 12759936

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Micro Quadlock Series (BK)

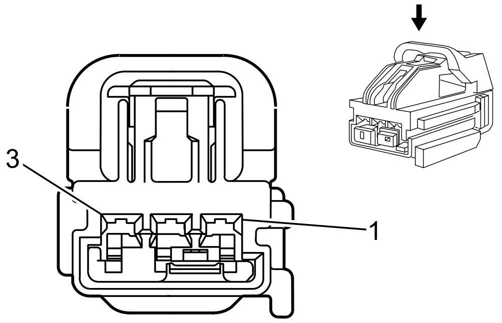
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M37L Mode Door Actuator - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/YE	1791	Air Temperature Door Control Low Reference	I	-
2	0.35	WH/GN	2275	Mode 1 Valve Position Sensor Signal	I	-
3	0.35	GY/RD	598	5 Volt Reference	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	WH	119	Mode Door Control	I	-
6	0.35	YE/BN	2273	Mode Door Control	I	-

M45 Rear Wiper Motor



Connector Part Information

Harness Type: Liftgate

OEM Connector: 10847008

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 1.5 Kaizen Series (L-GY)

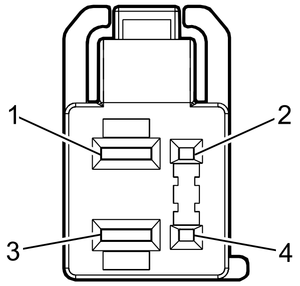
Terminal Part Information

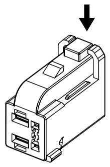
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M45 Rear Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1450	Ground	I	-
2	0.5	L-GN/GY	6135	Linear Interconnect Network Bus 4	I	-
3	0.75	RD/YE	3040	Battery Positive Voltage	I	-

M50D Seat Front Vertical Motor - Driver





Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4 F 0.64, 2.8 Series (BK)

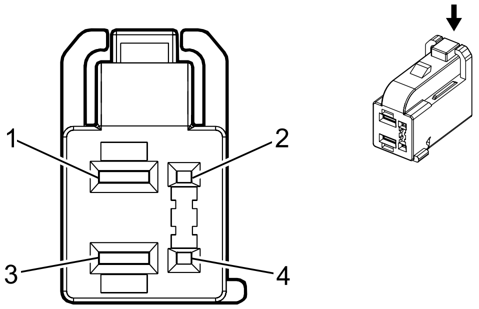
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M50D Seat Front Vertical Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	-
2	0.35	WH/RD	3298	Memory Sensor High Reference (2)	I	-
3	1.5	L-BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	-
4	0.5	BN/WH	557	Memory Seat Front Vertical Motor Position Sensor Signal	I	-

M50P Seat Front Vertical Motor - Passenger



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4 F 0.64, 2.8 Series (BK)

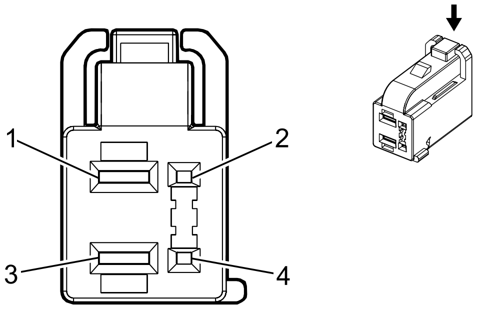
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M50P Seat Front Vertical Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/L-BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	L-GN/VT	297	Passenger Power Seat Front Vertical Motor Up Control	I	-
4	-	-	-	Not Occupied	-	-

M51D Seat Horizontal Motor - Driver



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series (BK)

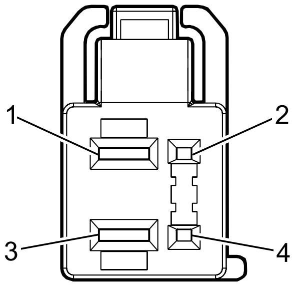
Terminal Part Information

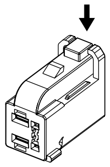
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M51D Seat Horizontal Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE/L-BU	285	Driver Power Seat Horizontal Motor Forward Control	I	-
2	0.35	WH/RD	3298	Memory Sensor High Reference (2)	I	-
3	1.5	GY/L-GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	-
4	0.5	L-GN	569	Memory Seat Horizontal Motor Position Sensor Signal	I	-

M51P Seat Horizontal Motor - Passenger





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4 F 0.64, 2.8 Series (BK)

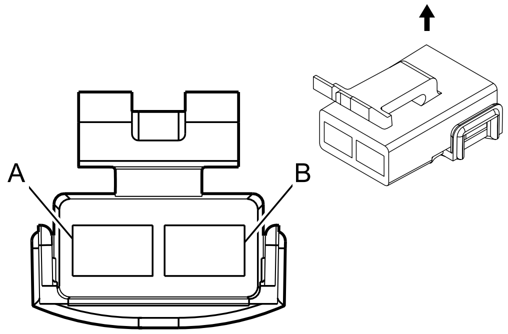
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M51P Seat Horizontal Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE/L-BU	290	Passenger Power Seat Horizontal Motor Rearward Control	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	YE/WH	296	Passenger Power Seat Horizontal Motor Forward Control	I	-
4	-	-	-	Not Occupied	-	-

M52D Seat Lumbar Support Horizontal Motor - Driver (without Y91 or Z75)



Connector Part Information

Harness Type: Driver Seat Back

OEM Connector: 12020556

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 480 Metri Pack Series (BK)

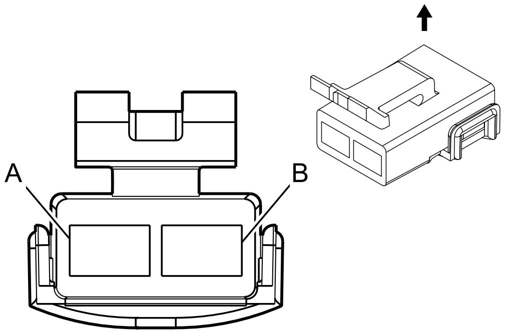
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-40 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M52D Seat Lumbar Support Horizontal Motor - Driver (without Y91 or Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	L-BU	611	Driver Power Seat Lumbar Motor Forward Control	I	-
B	1.5	VT	610	Driver Power Seat Lumbar Motor Rearward Control	I	-

M52P Seat Lumbar Support Horizontal Motor - Passenger (without Y91 or Z75)



Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: 12020556

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 480 Metri Pack Series (BK)

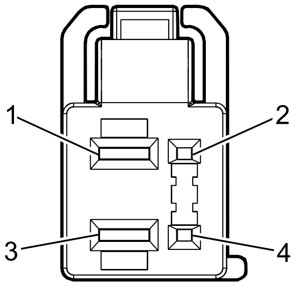
Terminal Part Information

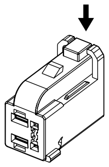
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-40 (BU)	J-38125-11A	12124304	2	A	B

M52P Seat Lumbar Support Horizontal Motor - Passenger (without Y91 or Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	L-BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	-
B	1.5	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	-

M55D Seat Rear Vertical Motor - Driver





Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4 F 0.64, 2.8 Series (BK)

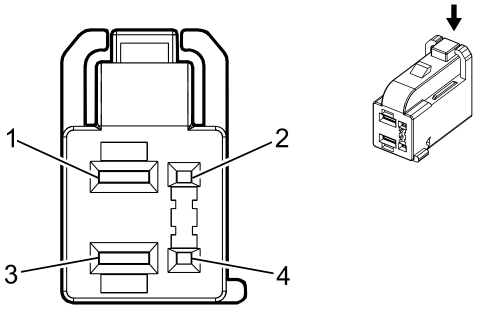
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M55D Seat Rear Vertical Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY/L-BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	-
2	0.35	WH/RD	3298	Memory Sensor High Reference (2)	I	-
3	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	-
4	0.5	YE/L-BU	568	Memory Seat Rear Vertical Motor Position Sensor Signal	I	-

M55P Seat Rear Vertical Motor - Passenger



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4 F 0.64, 2.8 Series (BK)

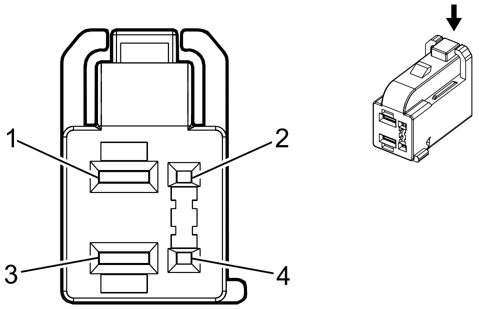
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M55P Seat Rear Vertical Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/WH	288	Passenger Power Seat Rear Vertical Motor Up Control	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	L-BU/WH	289	Passenger Power Seat Rear Vertical Motor Down Control	I	-
4	-	-	-	Not Occupied	-	-

M56D Seat Recline Motor - Driver



Connector Part Information

Harness Type: Driver Seat Back

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F .064, 2.8 Series (BK)

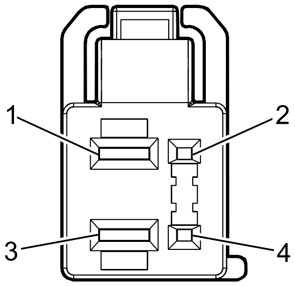
Terminal Part Information

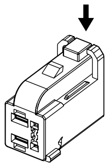
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M56D Seat Recline Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/L-GN	276	Driver Power Seat Recline Motor Forward Control	I	-
2	0.35	WH/WH	3298	Memory Sensor High Reference (2)	I	-
3	1.5	L-BU/L-BU	277	Driver Power Seat Recline Motor Rearward Control	I	-
4	0.35	WH/WH	570	Driver Memory Seat Recline Motor Position Sensor Signal	I	-

M56P Seat Recline Motor - Passenger





Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series (BK)

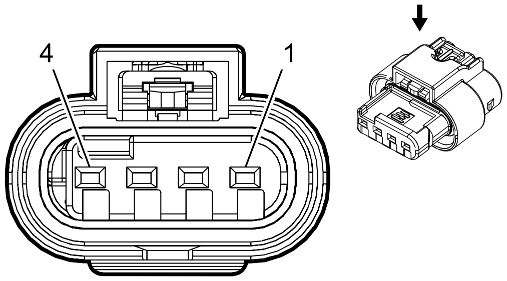
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M56P Seat Recline Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/L-GN	76	Passenger Power Seat Recline Motor Forward	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	L-BU/L-BU	77	Passenger Power Seat Recline Motor Rearward	I	-
4	-	-	-	Not Occupied	-	-

M60A Active Grille Air Shutter 1 Motor Module (Z75)



Connector Part Information

Harness Type: Active Shutter Jumper

OEM Connector: 13576420

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 1.2 MCP Series, Sealed (BK)

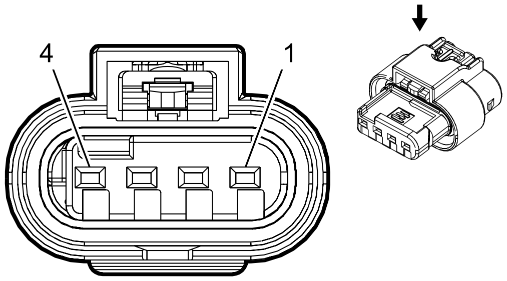
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M60A Active Grille Air Shutter 1 Motor Module (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3891	Aero Shutter Control	I	-
2	0.5	BK	250	Ground	I	-
3	0.5	WH/VT	4333	Aero Shutter Actuator Supply Voltage	I	-
4	-	-	-	Not Occupied	-	-

M60B Active Grille Air Shutter 2 Motor Module (Z75)



Connector Part Information

Harness Type: Active Shutter Jumper

OEM Connector: 13576420

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 1.2 MCP Series, Sealed (BK)

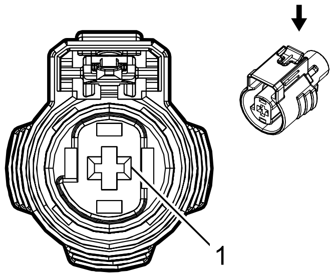
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M60B Active Grille Air Shutter 2 Motor Module (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	3890	Aero Shutter Control 2	I	-
2	0.5	BK	250	Ground	I	-
3	0.5	WH/VT	4333	Aero Shutter Actuator Supply Voltage	I	-
4	-	-	-	Not Occupied	-	-

M64 Starter Motor X1



Connector Part Information

Harness Type: Engine

OEM Connector: 13895252

Service Connector: 19300471

Description: 1-Way F 2.8 MCP Series, Sealed (BK)

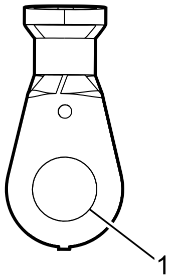
Terminal Part Information

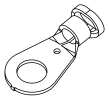
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M64 Starter Motor X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	YE	6	Starter Solenoid Crank Voltage	I	-

M64 Starter Motor X2





Connector Part Information

Harness Type: Fuse Block - Starter Motor

OEM Connector: 13583845

Service Connector: Service by Cable Assembly – See Part Catalog

Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	No Tool Required	Not Available	Not Available	Not Available	Not Available

M64 Starter Motor X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD	1	Unfused Battery Positive Voltage	I	-

M69 Sunroof Motor (CF5)

Connector Part Information

Harness Type: Sunroof

OEM Connector: 6098–6097

Service Connector: Service by Harness – See Part Catalog

Description: 12-Way F (NA)

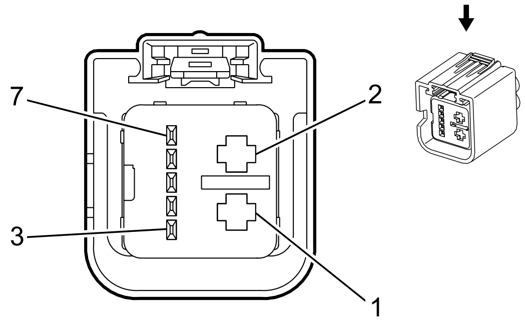
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M69 Sunroof Motor (CF5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	300	Run Ignition 3 Voltage	I	-
2	0.35	BN/BU	2074	Sunroof Switch Express Signal	II	-
3	0.35	VT/YE	43	Accessory Ignition Voltage	II	-
4	0.35	YE/VT	144	Sunroof Switch Open Vent Signal	II	-
5	0.35	BU/WH	110	Sunroof Switch Close Signal	II	-
6	0.35	GY/VT	2075	Sunroof Switch Close Vent Signal	II	-
7	0.35	GN/WH	100	Sunroof Switch Open Signal	I	-
8	2	RD/GN	3140	Battery Positive Voltage	III	-
9	-	-	-	Not Occupied	-	-
10	-	-	-	Not Occupied	-	-
11	-	-	-	Not Occupied	-	-
12	2	BK	1050	Ground	III	-

M74D Window Motor - Driver



Connector Part Information

Harness Type: Driver Door

OEM Connector: 13595813

Service Connector: Service by Harness - See Part Catalog

Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed (BK)

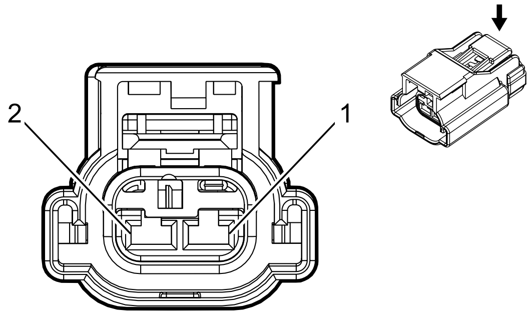
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M74D Window Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1150	Ground	I	-
2	2.5	RD/D-BU	1842	Battery Positive Voltage	I	-
3	0.35	L-GN/WH	1300	Power Window Master Switch Left Front Up Signal	II	-
4	0.5	L-GN/YE	6134	Linear Interconnect Network Bus 3	II	-
5	0.35	L-GN/VT	7628	Power Window Motor Left Front Express Control	II	-
6	0.35	GY	745	Left Front Door Ajar Switch Signal	II	-
7	0.35	GY	1136	Power Window Master Switch Left Front Down Signal	II	-

M74LR Window Motor - Left Rear



Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 13863838

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Series, Sealed (BK)

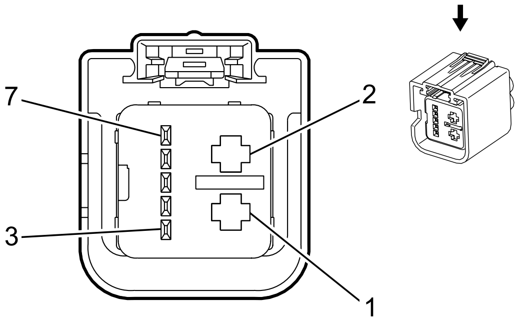
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M74LR Window Motor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	D-BU/VT	668	Power Window Motor Left Rear Up Control	I	-
2	2.5	YE/D-BU	669	Power Window Motor Left Rear Down Control	I	-

M74P Window Motor - Passenger



Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13595813

Service Connector: Service by Harness - See Part Catalog

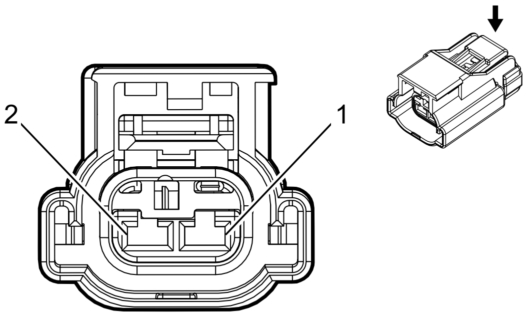
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M74P Window Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1250	Ground	I	-
2	2.5	RD/WH	1340	Battery Positive Voltage	I	-
3	0.35	YE/BK	166	Power Window Master Switch Right Front Up Signal	II	-
4	0.5	L-GN/YE	6134	Linear Interconnect Network Bus 3	II	-
5	0.35	VT/GY	2765	Power Window Switch Right Front Express Signal	II	-
6	0.35	GY	746	Right Front Door Ajar Switch Signal	II	-
7	0.35	BN/YE	167	Power Window Master Switch Right Front Down Signal	II	-



Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 13863838

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Series, Sealed (BK)

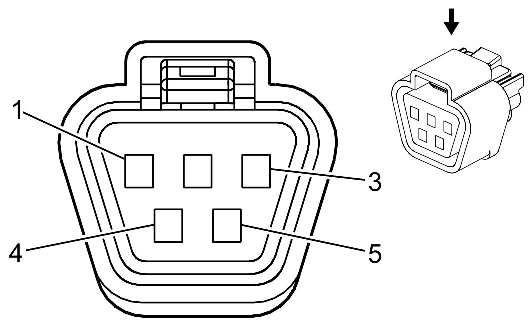
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M74RR Window Motor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	D-BU/GY	670	Power Window Motor Right Rear Up Control	I	-
2	2.5	L-GN/BK	671	Power Window Motor Right Rear Down Control	I	-

M75 Windshield Wiper Motor



Connector Part Information

Harness Type: Body

OEM Connector: 15316488

Service Connector: 13587179

Description: 5-Way F 090 Series, Sealed (GY)

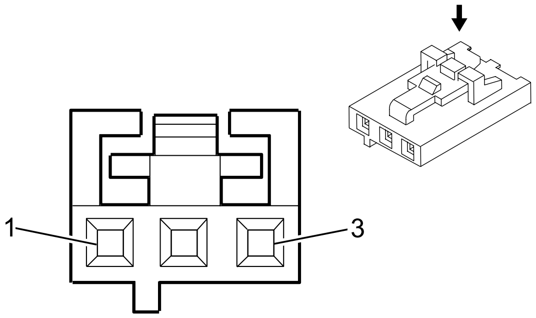
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE/BN	95	Windshield Wiper Motor Low Speed Control	I	-
2	0.5	BK	1850	Ground	I	-
3	0.5	BN/L-GN	196	Windshield Wiper Motor Park Switch Signal	I	-
4	1	WH	92	Windshield Wiper Motor High Speed Control	I	-
5	1	BK	550	Ground	I	-

M77D Outside Rearview Mirror Motor – Driver (without A45)



Connector Part Information

Harness Type: Outside Rearview Mirror - Driver

OEM Connector: MHFD503B

Service Connector: Service by Component - See Part Catalog

Description: 3 Way F 0.64 SL Series (BK)

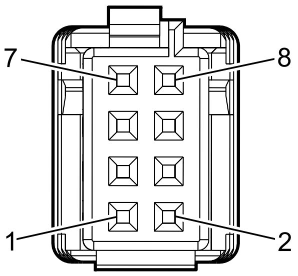
Terminal Part Information

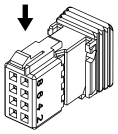
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M77D Outside Rearview Mirror Motor – Driver (without A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/WH	3389	Driver Mirror Motor Right (+) Left (-) Control	I	—
2	0.35	WH	3391	Driver Mirror Motor Common Control	I	—
3	0.35	OG/BK	3390	Driver Mirror Motor Up (+) Down (-) Control	I	—

M77D Outside Rearview Mirror Motor – Driver (A45)





Connector Part Information

Harness Type: Outside Rearview Mirror – Driver

OEM Connector: Not Available

Service Connector: Service by Component – See Part Catalog

Description: 8-Way F (L-GN)

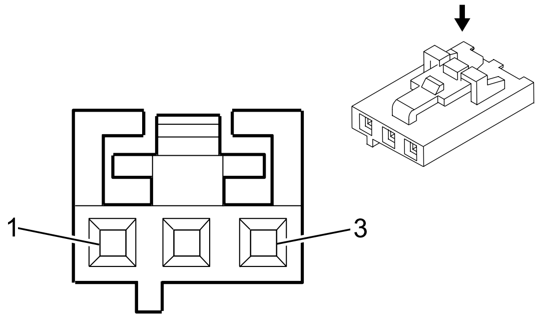
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M77D Outside Rearview Mirror Motor – Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN	3392	Driver Mirror Position Sensor 5 Volt Reference	I	-
2	0.35	GN/WH	3389	Driver Mirror Motor Right (+) Left (-) Control	I	-
3	0.35	D-GN	3394	Driver Mirror Position Sensor Up (+) Down (-) Signal	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	D-BU	3393	Driver Mirror Position Sensor Low Reference	I	-
6	0.35	WH	3391	Driver Mirror Motor Common Control	I	-
7	0.35	GY	3395	Driver Mirror Position Sensor Left (-) Right (+) Signal	I	-
8	0.35	RD/BK	3390	Driver Mirror Motor Up (+) Down (-) Control	I	-

M77P Outside Rearview Mirror Motor – Passenger (without A45)



Connector Part Information

Harness Type: Outside Rearview Mirror - Driver

OEM Connector: MHFD503B

Service Connector: Service by Component - See Part Catalog

Description: 3 Way F 0.64 SL Series (BK)

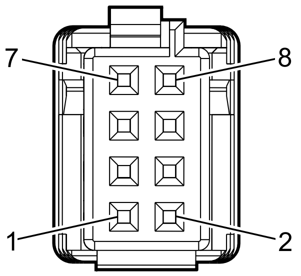
Terminal Part Information

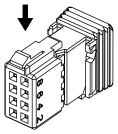
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M77P Outside Rearview Mirror Motor – Passenger (without A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/WH	3396	Passenger Mirror Motor Right (+) Left (-) Control	I	—
2	0.35	WH	3398	Passenger Mirror Motor Common Control	I	—
3	0.35	OG/BK	3397	Passenger Mirror Motor Up (+) Down (-) Control	I	—

M77P Outside Rearview Mirror Motor - Passenger (A45)





Connector Part Information

Harness Type: Outside Rearview Mirror – Passenger

OEM Connector: Not Available

Service Connector: Service by Component – See Part Catalog

Description: 8-Way F (L-GN)

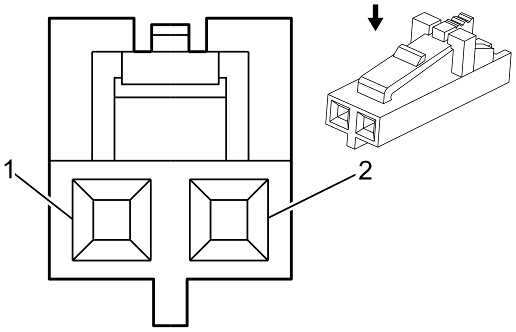
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M77P Outside Rearview Mirror Motor - Passenger (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	L-GN	3399	Passenger Mirror Position Sensor 5 Volt Reference	I	-
2	0.35	GN/WH	3396	Passenger Mirror Motor Right (+) Left (-) Control	I	-
3	0.35	D-GN	3401	Passenger Mirror Position Sensor Up (+) Down (-) Signal	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	D-BU	3400	Passenger Mirror Position Sensor Low Reference	I	-
6	0.35	WH	3398	Passenger Mirror Motor Common Control	I	-
7	0.35	GY	3403	Passenger Mirror Position Sensor Left (-) Right (+) Signal	I	-
8	0.35	RD/BK	3397	Passenger Mirror Motor Up (+) Down (-) Control	I	-

M78D Outside Rearview Mirror Folding Motor - Driver (DL3 or DR4)



Connector Part Information

Harness Type: Outside Rearview Mirror - Driver

OEM Connector: 50-57-9402

Service Connector: Service by Component - See Part Catalog

Description: 2–Way F 0.64 SL Series (BK)

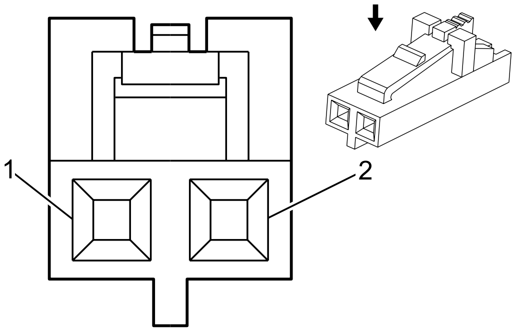
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M78D Outside Rearview Mirror Folding Motor - Driver (DL3 or DR4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	3411	Driver Mirror Motor Fold Out Control	I	—
2	0.35	L-BU	3412	Driver Mirror Motor Fold In Control	I	—

M78P Outside Rearview Mirror Folding Motor - Passenger (DL3 or DR4)



Connector Part Information

Harness Type: Outside Rearview Mirror - Passenger

OEM Connector: 50-57-9402

Service Connector: Service by Component - See Part Catalog

Description: 2–Way F 0.64 SL Series (BK)

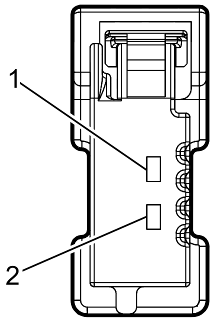
Terminal Part Information

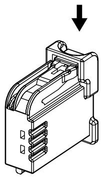
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

M78P Outside Rearview Mirror Folding Motor - Passenger (DL3 or DR4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	3413	Passenger Mirror Motor Fold Out Control	I	—
2	0.35	L-BU	3414	Passenger Mirror Motor Fold In Control	I	—

M91 Instrument Panel Compartment Door Unlatch Actuator (Z75)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

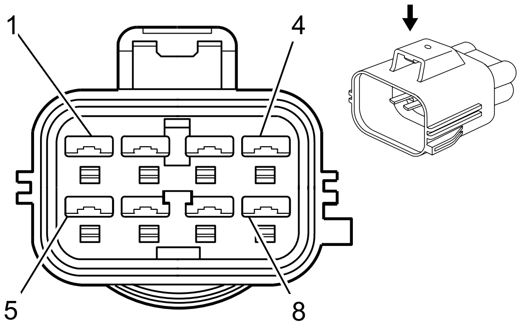
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M91 Instrument Panel Compartment Door Unlatch Actuator (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/GY	4048	Glove Box Door Release Control	I	-
2	1	BK	1050	Ground	I	-

M95L Assist Step - Left (BRS)



Connector Part Information

Harness Type: Chassis

OEM Connector: 15419459

Service Connector: 19167744

Description: 8-Way M 2.8 Series, Sealed (D-GY)

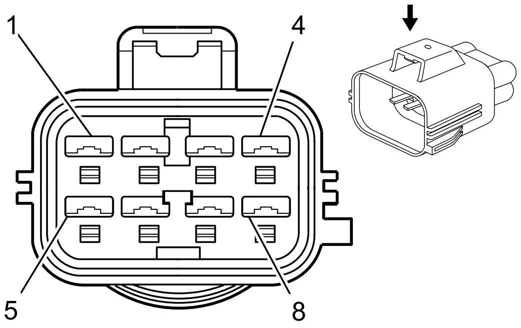
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M95L Assist Step - Left (BRS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	WH/BN	7471	Articulating Running Boards Motor Left Control Extend	I	-
2	0.5	VT/RD	7468	Running Boards Motor Hall Sensor Left Reference	I	-
3	0.5	YE	7467	Running Boards Motor Hall Sensor Left Signal	I	-
4	0.5	YE/BN	7466	Running Boards Motor Hall Sensor Left Return	I	-
5	2	GY	7472	Articulating Running Boards Motor Left Control Retract	I	-
6	-	-	-	Not Occupied	-	-
7	0.5	GY/L-GN	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	I	-
8	0.5	BK	1750	Ground	I	-

M95R Assist Step - Right (BRS)



Connector Part Information

Harness Type: Chassis

OEM Connector: 15419459

Service Connector: 19167744

Description: 8-Way M 2.8 Series, Sealed (D-GY)

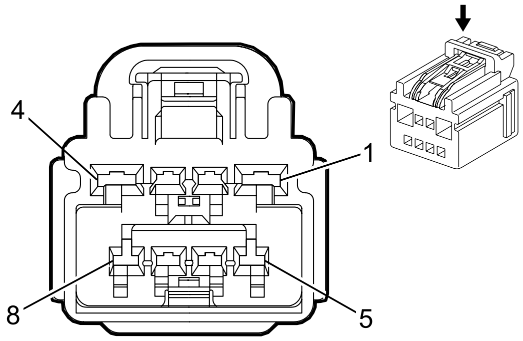
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M95R Assist Step - Right (BRS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	D-BU	7470	Articulating Running Boards Motor Right Control Extend	I	-
2	0.5	L-GN/RD	7464	Running Boards Motor Hall Sensor Right Reference	I	-
3	0.5	VT	7465	Running Boards Motor Hall Sensor Right Signal	I	-
4	0.5	YE/BK	7463	Running Boards Motor Hall Sensor Right Return	I	-
5	2	L-GN	7469	Articulating Running Boards Motor Right Control Retract	I	-
6	-	-	-	Not Occupied	-	-
7	0.5	GY/L-GN	5996	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	I	-
8	0.5	BK	1750	Ground	I	-

M101L Seat Belt Retractor Motor Module - Left (AX7)



Connector Part Information

Harness Type: Body

OEM Connector: 10847007

Service Connector: 19153181

Description: 8-Way F YESC Kaizen Series (L-GY)

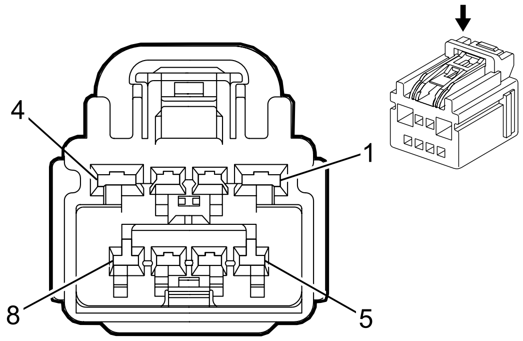
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M101L Seat Belt Retractor Motor Module - Left (AX7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	BK	1150	Ground	I	-
2	0.35	WH/D-BU	5986	Serial Data Communication Enable	II	-
3	-	-	-	Not Occupied	-	-
4	4	RD/WH	4042	Battery Positive Voltage	I	-
5	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	II	-
6	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	II	-
7	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	II	-
8	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	II	-

M101R Seat Belt Retractor Motor Module - Right (AX7)



Connector Part Information

Harness Type: Body

OEM Connector: 10847007

Service Connector: 19153181

Description: 8-Way F YESC Kaizen Series (L-GY)

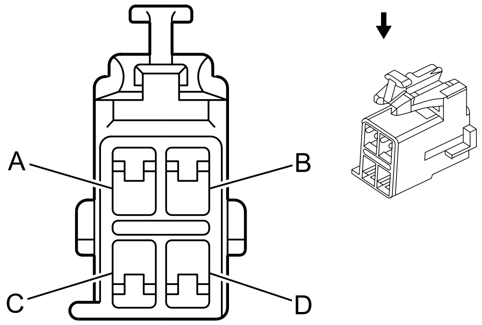
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

M101R Seat Belt Retractor Motor Module - Right (AX7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	BK	1250	Ground	I	-
2	0.35	WH/D-BU	5986	Serial Data Communication Enable	II	-
3	-	-	-	Not Occupied	-	-
4	4	RD/GY	1042	Battery Positive Voltage	I	-
5	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	II	-
6	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	II	-
7	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	II	-
8	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	II	-

M107LR Folding Seat Motor - 2nd Row Left (ATN or ATT)



Connector Part Information

Harness Type: 2nd Row Seat Left

OEM Connector: 7123-9588-30

Service Connector: 1212936

Description: 4-Way F 280 Metri Pack Series, Flexlock (BK)

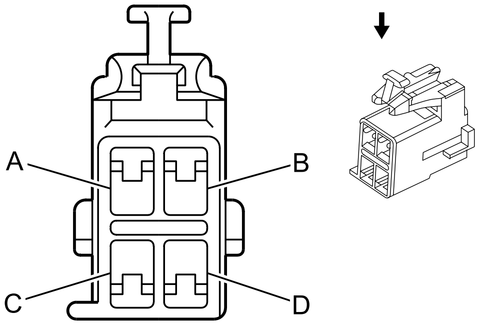
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M107LR Folding Seat Motor - 2nd Row Left (ATN or ATT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	RD/L-BU	1240	Battery Positive Voltage	I	-
B	0.75	GY	1150	Ground	I	-
C	0.5	L-GN	6808	Left Rear Seat Fold Tumble Control	I	-
D	-	-	-	Not Occupied	-	-

M107RR Folding Seat Motor - 2nd Row Right (ATN or ATT)



Connector Part Information

Harness Type: 2nd Row Seat Right

OEM Connector: 7123-9588-30

Service Connector: 12129136

Description: 4-Way F 280 Metri Pack Series, Flexlock (GY)

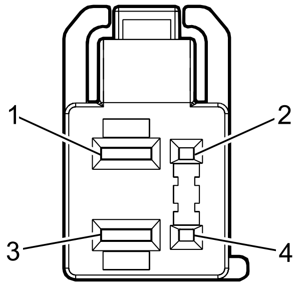
Terminal Part Information

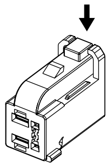
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M107RR Folding Seat Motor - 2nd Row Right (ATN or ATT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	RD	1240	Battery Positive Voltage	I	-
B	0.75	GY	1250	Ground	I	-
C	0.5	BN	6809	Right Rear Seat Fold Tumble Control	I	-
D	-	-	-	Not Occupied	-	-

M108LR Folding Seat Motor - 3rd Row Left (AS8)





Connector Part Information

Harness Type: 3rd Row Seat Left

OEM Connector: 3-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series (BN)

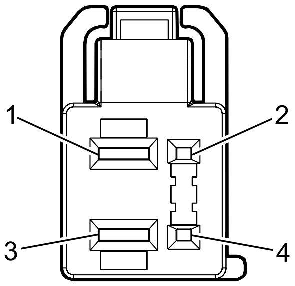
Terminal Part Information

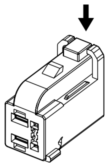
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M108LR Folding Seat Motor - 3rd Row Left (AS8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	TN	4222	LH Third Row Seat Recline Motor Rearward Control	I	-
2	0.35	YE/L-BU	4214	LH Third Row Seat Recline Position Sensor Signal	I	-
3	1.5	RD	4221	LH Third Row Seat Recline Motor Forward Control	I	-
4	0.35	BN/WH	4216	Seat Sensor Voltage Reference #1	I	-

M108RR Folding Seat Motor - 3rd Row Right (AS8)





Connector Part Information

Harness Type: 3rd Row Seat Right

OEM Connector: 0-023-66-52

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series (BN)

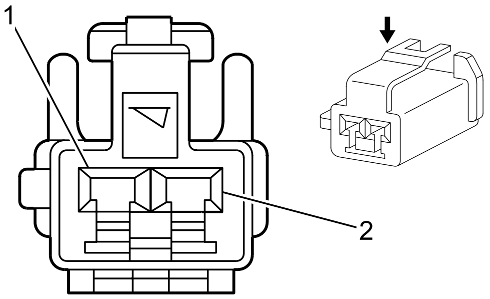
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M108RR Folding Seat Motor - 3rd Row Right (AS8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	OG	4218	RH Third Row Seat Recline Rearward Control	I	-
2	0.35	WH/RD	4213	RH Third Row Seat Recline Position Sensor Signal	I	-
3	1.5	WH/BK	4217	RH Third Row Seat Recline Motor Forward Control	I	-
4	0.35	WH/BK	4215	Seat Sensor Voltage Reference #2	I	-

M109LR Folding Seat Back Unlatch Motor - 3rd Row Left (AS8)



Connector Part Information

Harness Type: 3rd Row Seat Left

OEM Connector: 7283-6160

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 090 Series (NA)

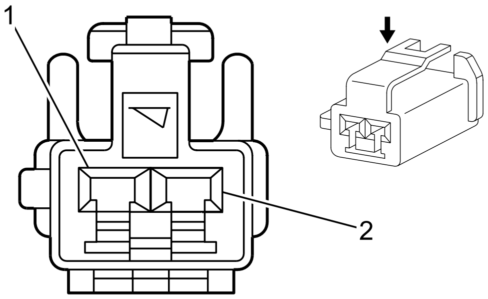
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M109LR Folding Seat Back Unlatch Motor - 3rd Row Left (AS8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE/WH	4228	LH Third Row Seat Recline Rearward Lock Actuator Control	I	-
2	1.5	GY	4227	LH Third Row Seat Recline Forward Lock Actuator Control	I	-

M109RR Folding Seat Back Unlatch Motor - 3rd Row Right (AS8)



Connector Part Information

Harness Type: 3rd Row Seat Right

OEM Connector: 7283-6160

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 090 Series (NA)

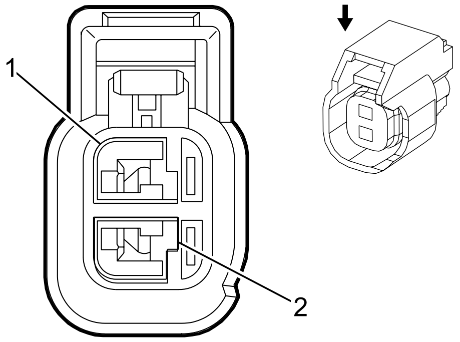
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

M109RR Folding Seat Back Unlatch Motor - 3rd Row Right (AS8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	RD/GY	4225	RH Third Row Seat Recline Forward Lock Actuator Control	I	-
2	1.5	L-GN	4226	RH Third Row Seat Recline Rearward Lock Actuator Control	I	-

P12 Horn



Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13594801

Service Connector: 13585854

Description: 2-Way F 150 GT Series, Sealed (BK)

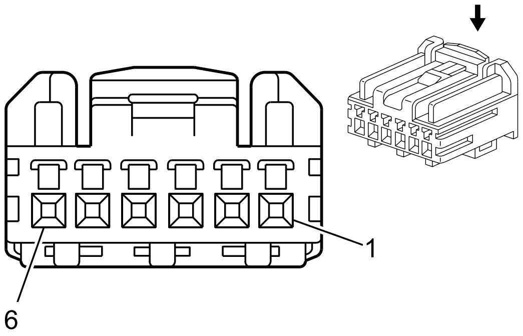
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P12 Horn

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	150	Ground	I	-
2	0.75	BN/GY	29	Horn Control	I	-

P14 Passenger Air Bag Disabled Indicator



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13608102

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 HCM Series (NA)

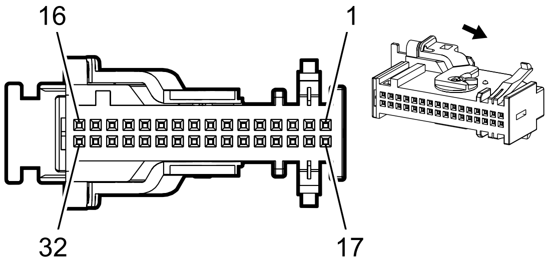
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P14 Passenger Air Bag Disabled Indicator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	I	-
2	0.5	BK	1050	Ground	I	-
3	0.35	L-GN	2308	Passenger Air Bag Off Indicator Control	I	-
4	0.35	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	-
5	0.35	VT/WH	5234	Passenger Seat Belt Indicator	I	-
6	-	-	-	Not Occupied	-	-

P16 Instrument Cluster X1



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12198036

Service Connector: 88988405

Description: 32-Way F 0.64 Micro Quadlok Series (BK)

Terminal Part Information

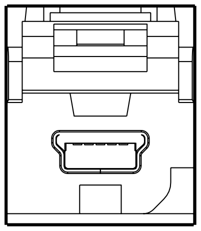
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575521	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575783	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

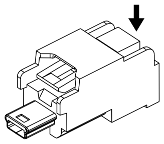
P16 Instrument Cluster X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/L-GN	3997	MOST Serial Data (-)	I	-
2	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
3	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	WH/VT	3999	MOST Control	I	-
6	-	-	-	Not Occupied	-	-
7	0.5	RD/GY	2840	Battery Positive Voltage	I	-
8	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage	II	-
9-11	-	-	-	Not Occupied	-	-
12	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	UEU or UFL without UV6
13-15	-	-	-	Not Occupied	-	-
16	0.35	BN/WH	419	Check Engine Indicator Control	I	-
17	0.5	GY/VT	3998	MOST Serial Data (+)	I	-
18	0.5	WH/L-GN	3997	MOST Serial Data (-)	I	-

19	0.5	BK/WH	1851	Signal Ground	I	-
20	0.5	L-GN/BK	3894	Linear Interconnect Network Bus 12	I	-
21	0.5	L-GN/BK	3894	Linear Interconnect Network Bus 12	II	UDV with UV6
22-23	-	-	-	Not Occupied	-	-
24	0.35	VT	185	Low Washer Fluid Indicator Control	I	-
25-29	-	-	-	Not Occupied	-	-
30	0.35	WH/L-GN	3535	Reflected LED Display Dimming Control	I	UEU or UFL without UV6
31-32	-	-	-	Not Occupied	-	-

P16 Instrument Cluster X2 (UV6 without Z75)





Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13585546

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (BK)

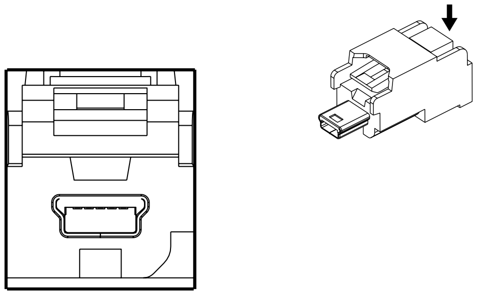
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P16 Instrument Cluster X2 (UV6 without Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Head—Up Display Signal	I	—

P16 Instrument Cluster X2 (UV6 with Z75)



Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13584750

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (BK)

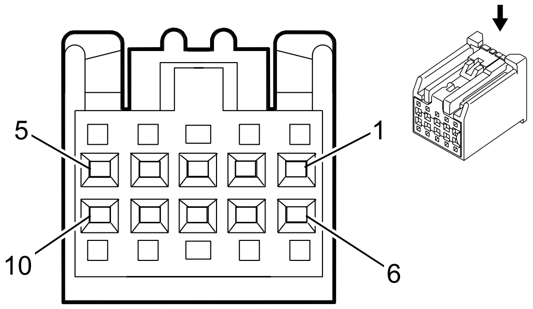
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P16 Instrument Cluster X2 (UV6 with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Head—Up Display Signal	I	—

P17 Info Display Module X1 (X88 or Z88)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13815336

Service Connector: 13577390

Description: 10-Way F 0.64 Kaizen Series (BK)

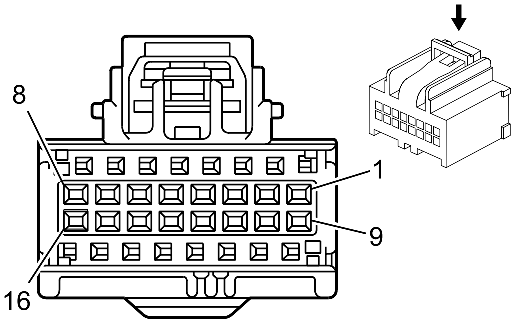
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X1 (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GY	2840	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
4	-	-	-	Not Occupied	-	-
5	0.5	L-GN/D-BU	7532	Linear Interconnect Network Bus 10	I	-
6-7	-	-	-	Not Occupied	-	-
8	0.5	L-GN/WH	7527	Linear Interconnect Network Bus 5	I	IO5 or IO6
9	-	-	-	Not Occupied	-	-
10	0.35	BK	2550	Ground	I	-

P17 Info Display Module X1 (Z75)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15491285

Service Connector: 15136073

Description: 16-Way F Kaizen 64 Series (BK)

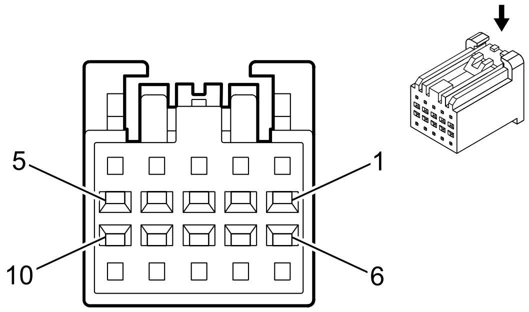
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X1 (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-5	-	-	-	Not Occupied	-	-
6	0.5	L-GN/WH	7527	Linear Interconnect Network Bus 5	I	-
7	0.5	L-GN/D-BU	7532	Linear Interconnect Network Bus 10	I	-
8	0.35	L-GN/YE	7531	Linear Interconnect Network Bus 9	I	-
9	0.5	RD/GY	2840	Battery Positive Voltage	I	-
10-11	-	-	-	Not Occupied	-	-
12	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
13-15	-	-	-	Not Occupied	-	-
16	0.35	BK	2550	Ground	I	-

P17 Info Display Module X2 (X88 or Z88)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13876499

Service Connector: 13581139

Description: 10-Way F 0.64 Kaizen Series (GY)

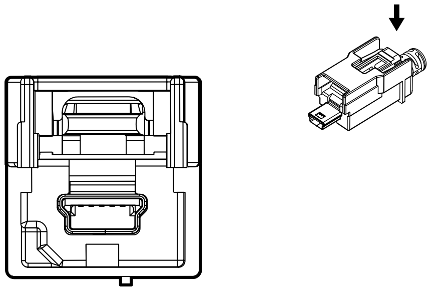
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X2 (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GY	2840	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN	5060	Low Speed GMLAN Serial Data	I	-
4-8	-	-	-	Not Occupied	-	-
9	0.35	L-GN/YE	7531	Linear Interconnect Network Bus 9	I	-
10	0.35	BK	2550	Ground	I	-

P17 Info Display Module X2 (IO6 with Z75)



Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13584751

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (GY)

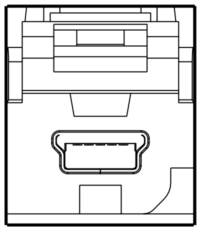
Terminal Part Information

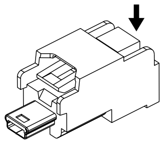
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X2 (IO6 with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Navigation Display Signal	I	—

P17 Info Display Module X3 (IO3)





Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13585076

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (BK)

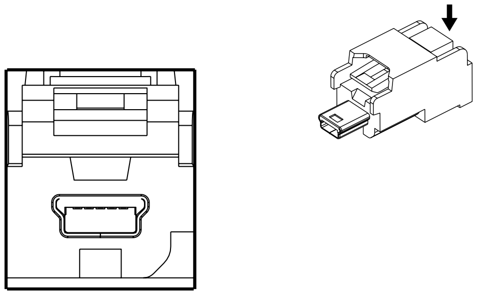
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X3 (IO3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Radio Display Signal	I	—

P17 Info Display Module X3 (IO5 or IO6 without U42 or Z75)



Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13585072

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (BK)

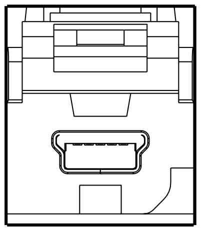
Terminal Part Information

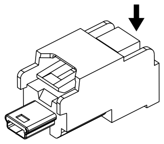
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X3 (IO5 or IO6 without U42 or Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Navigation Display Signal	I	—

P17 Info Display Module X3 (IO5 or IO6 with U42, without Z75)





Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13587999

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (BK)

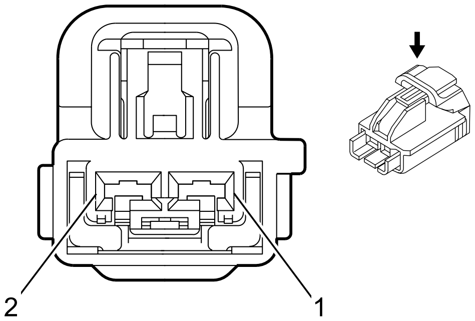
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X3 (IO5 or IO6 with U42, without Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Navigation Display Signal	I	—

P19AC Speaker - Subwoofer (UQA, UQH or UQS)



Connector Part Information

Harness Type: Body

OEM Connector: 10846819

Service Connector: 19301720

Description: 2-Way F Kaizen YESC Series (L-GY)

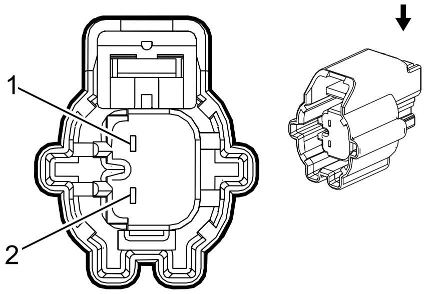
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19AC Speaker - Subwoofer (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	D-BU/GY	346	Left/Rear Subwoofer Speaker (+)	I	-
2	2.5	GY/BK	315	Right Subwoofer Speaker (-)	I	-

P19AG Speaker - Left Front Door (without UQH)



Connector Part Information

Harness Type: Driver Door

OEM Connector: 13665501

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series (BK)

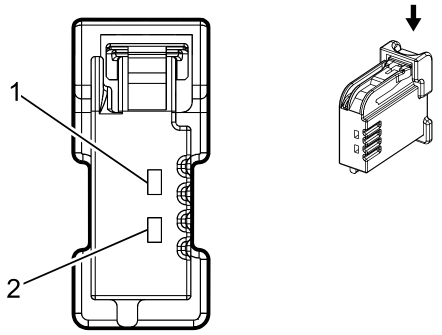
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19AG Speaker - Left Front Door (without UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN/D-BU	118	Left Front Speaker Signal (-) (1)	I	-
2	1	D-BU	201	Left Front Speaker (+) (1)	I	-

P19AG Speaker - Left Front Door (UQH)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

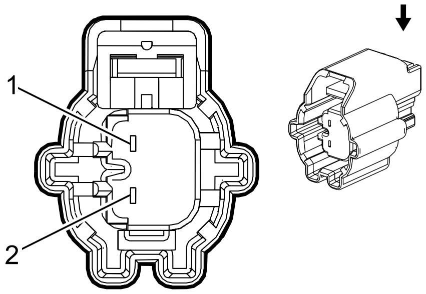
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575790	J-35616-2A (GY)	J-38125-553	15496302	5	2	A

P19AG Speaker - Left Front Door (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/GY	1956	Left Front Tweeter Speaker (-)	I	-
2	0.75	YE/D-BU	1856	Left Front Tweeter Speaker (+)	I	-

P19AH Speaker - Right Front Door (without UQH)



Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13665501

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series (BK)

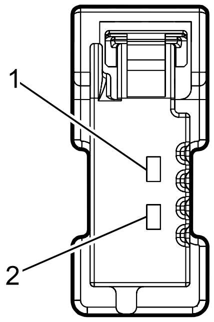
Terminal Part Information

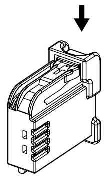
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19AH Speaker - Right Front Door (without UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE/BK	117	Right Front Speaker Signal (-) (1)	I	-
2	1	YE	200	Right Front Speaker (+) (1)	I	-

P19AH Speaker - Right Front Door (UQH)





Connector Part Information

Harness Type: Passenger Door Trim

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

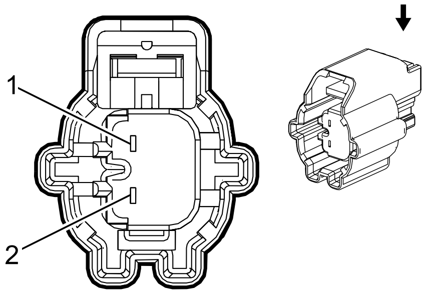
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327201	J-35616-2A (GY)	J-38125-553	8240-0128	22	C	A
II	13575790	J-35616-2A (GY)	J-38125-553	15496302	5	2	A

P19AH Speaker - Right Front Door (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BN	1952	Right Front Tweeter Speaker (-)	I	-
2	0.75	BN/L-GN	1852	Right Front Tweeter Speaker (+)	I	-

P19AL Speaker - Left Rear Door



Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 13665501

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series (BK)

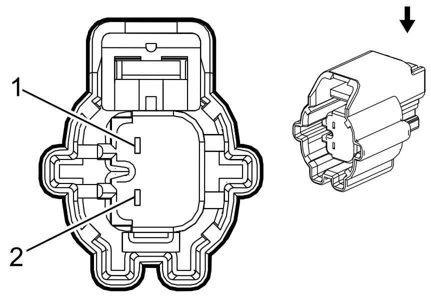
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19AL Speaker - Left Rear Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	L-GN/BK	116	Left Rear Speaker Signal (-)	I	-
2	1	L-GN	199	Left Rear Speaker (+)	I	-

P19AM Speaker - Right Rear Door



Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 13665501

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series (BK)

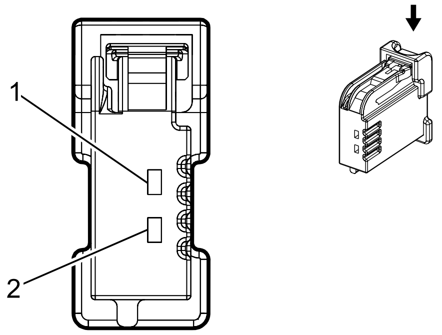
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19AM Speaker - Right Rear Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	D-BU/BK	115	Right Rear Speaker Signal (-)	I	-
2	1	WH	46	Right Rear Speaker (+)	I	-

P19AN Speaker - Left Rear Trim Panel (UQA, UQH or UQS)



Connector Part Information

Harness Type: Body

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

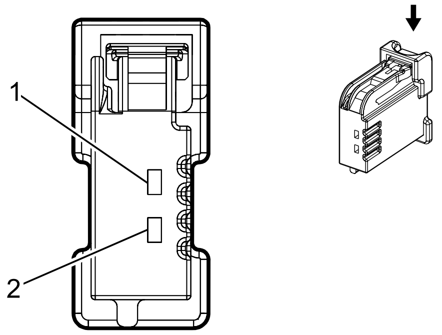
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19AN Speaker - Left Rear Trim Panel (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1 1	WH/BK L-GN/BK	1959 116	Left Rear Midrange Speaker (-) Left Rear Speaker Signal (-)	I	UQH or UQS UQA
2	1 1	YE/BN L-GN	1859 199	Left Rear Midrange Speaker (+) Left Rear Speaker (+)	I	UQH or UQS UQA

P19AP Speaker - Right Rear Trim Panel (UQA, UQH or UQS)



Connector Part Information

Harness Type: Body

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

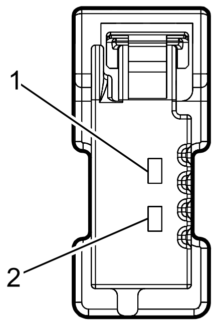
Terminal Part Information

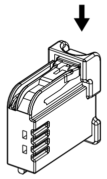
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19AP Speaker - Right Rear Trim Panel (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1 1	WH/BK D-BU/BK	1959 115	Left Rear Midrange Speaker (-) Right Rear Speaker Signal (-)	I	UQH or UQS UQA
2	1 1	YE/BN WH	1859 46	Left Rear Midrange Speaker (+) Right Rear Speaker (+)	I	UQH or UQS UQA

P19B Speaker - Center Instrument Panel (UQH or UQS)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

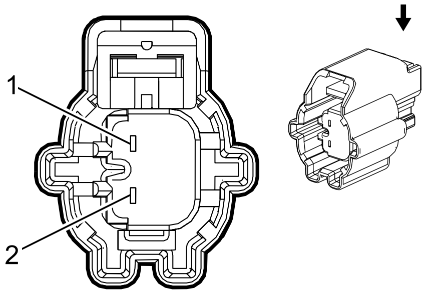
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19B Speaker - Center Instrument Panel (UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU/YE	1960	Front Center Speaker (-)	I	-
2	0.75	YE/WH	1860	Front Center Speaker (+)	I	-

P19DD Speaker - Left Front Door Woofer (UQH)



Connector Part Information

Harness Type: Driver Door

OEM Connector: 13665501

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series (BK)

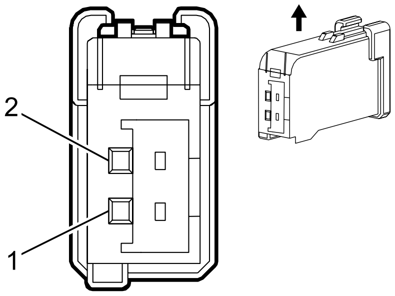
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327111	J-35616-2A (GY)	J-38125-553	12191812	19	C	A

P19DD Speaker - Left Front Door Woofer (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN/D-BU	118	Left Front Speaker Signal (-) (1)	I	-
2	1	D-BU	201	Left Front Speaker (+) (1)	I	-

P19HD Speaker - Left Front Door Tweeter (UQH)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13595633

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Kaizen Series (BK)

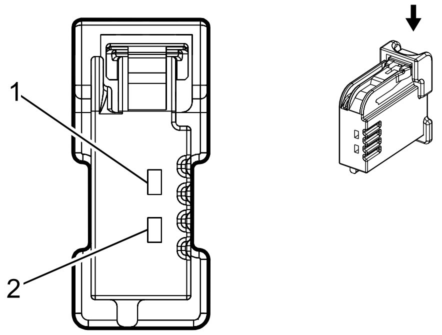
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19HD Speaker - Left Front Door Tweeter (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU	201	Left Front Speaker (+) (1)	I	-
2	0.75	BN/D-BU	118	Left Front Speaker Signal (-) (1)	I	-

P19J Speaker - Left Instrument Panel (UQA, UQH or UQS)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

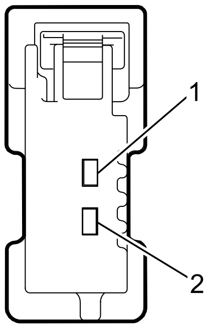
Terminal Part Information

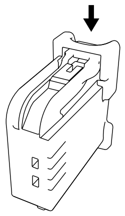
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19J Speaker - Left Instrument Panel (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/GY	1956	Left Front Tweeter Speaker (-)	I	-
2	0.75	YE/D-BU	1856	Left Front Tweeter Speaker (+)	I	-

P19J Speaker - Left Instrument Panel (UQ3)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13595207

Service Connector: 13584097

Description: 2-Way F 0.64, 1.5 Series (BK)

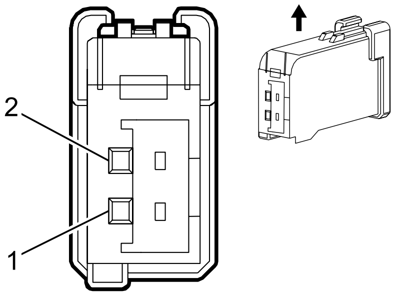
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19J Speaker - Left Instrument Panel (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/D-BU	118	Left Front Speaker Signal (-) (1)	I	-
2	0.5	D-BU	201	Left Front Speaker (+) (1)	I	-

P19M Speaker - Left Rear Tweeter (UQH)



Connector Part Information

Harness Type: Left Rear Door Trim

OEM Connector: 13595633

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Kaizen Series (BK)

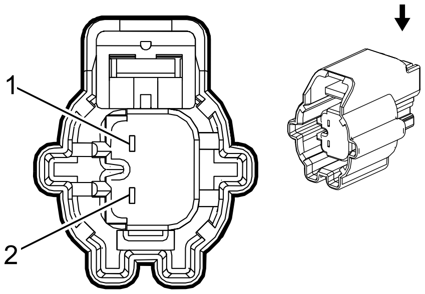
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19M Speaker - Left Rear Tweeter (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	L-GN/BK	116	Left Rear Speaker Signal (-)	I	-
2	0.75	L-GN	199	Left Rear Speaker (+)	I	-

P19PD Speaker - Right Front Door Woofer (UQH)



Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13665501

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 GT Series (BK)

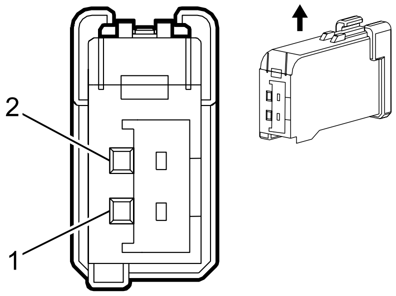
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327111	J-35616-2A (GY)	J-38125-553	12191812	19	C	A

P19PD Speaker - Right Front Door Woofer (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE/BK	117	Right Front Speaker Signal (-) (1)	I	-
2	1	YE	200	Right Front Speaker (+) (1)	I	-

P19VD Speaker - Right Front Door Tweeter (UQH)



Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13595633

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Kaizen Series (BK)

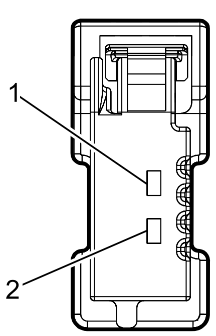
Terminal Part Information

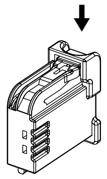
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19VD Speaker - Right Front Door Tweeter (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	200	Right Front Speaker (+) (1)	I	-
2	0.75	YE/BK	117	Right Front Speaker Signal (-) (1)	I	-

P19W Speaker - Right Instrument Panel (UQA, UQH or UQS)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13608099

Service Connector: 13314097

Description: 2-Way F 1.5 Series (GY)

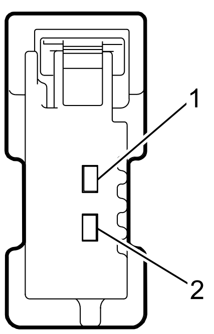
Terminal Part Information

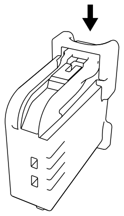
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19W Speaker - Right Instrument Panel (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BN	1952	Right Front Tweeter Speaker (-)	I	-
2	0.75	BN/L-GN	1852	Right Front Tweeter Speaker (+)	I	-

P19W Speaker - Right Instrument Panel (UQ3)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13595207

Service Connector: 13584097

Description: 2-Way F 0.64, 1.5 Series (BK)

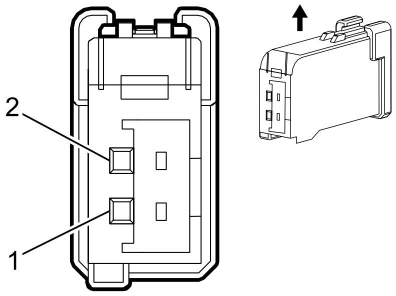
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P19W Speaker - Right Instrument Panel (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BK	117	Right Front Speaker Signal (-) (1)	I	-
2	0.5	YE	200	Right Front Speaker (+) (1)	I	-

P19Z Speaker - Right Rear Tweeter (UQH)



Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 13595633

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Kaizen Series (BK)

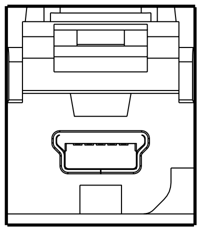
Terminal Part Information

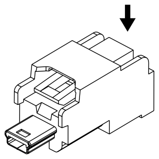
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P19Z Speaker - Right Rear Tweeter (UQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU/BK	115	Right Rear Speaker Signal (-)	I	-
2	0.75	WH	46	Right Rear Speaker (+)	I	-

P22A Video Display - 2nd Row X1 (U42)





Connector Part Information

Harness Type: Headliner LVDS

OEM Connector: 13871468

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (BK)

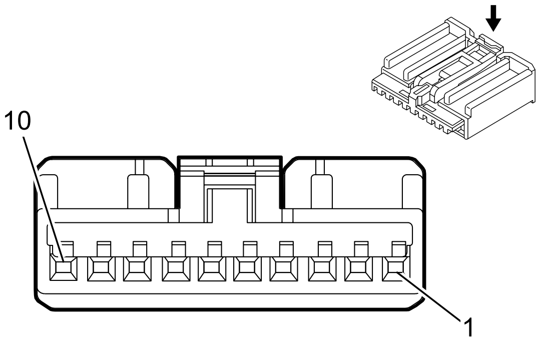
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P22A Video Display - 2nd Row X1 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Video Display Signal	I	—

P22A Video Display - 2nd Row X2 (U42)



Connector Part Information

Harness Type: Headliner

OEM Connector: 13574592

Service Connector: 13576634

Description: 10-Way F 0.64 Kaizen Series (BK)

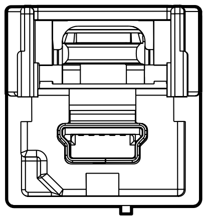
Terminal Part Information

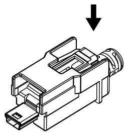
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P22A Video Display - 2nd Row X2 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/L-GN	7558	LED Ambient Lighting Control 2	I	-
2	0.5	BK	1050	Ground	I	-
3	0.5	GY	157	Interior Lamp Control	I	-
4	0.5	YE	6817	LED Backlight Dimming Control	I	-
5	0.5	WH/BN	6815	Inadvertent Power Control	I	-
6-7	-	-	-	Not Occupied	-	-
8	0.5	BK	2550	Ground	I	-
9	0.35	L-GN/YE	7066	Entertainment Remote Enable Signal	I	-
10	0.5	RD/L-GN	1540	Battery Positive Voltage	I	-

P22B Video Display - 3rd Row X1 (DNU)





Connector Part Information

Harness Type: Headliner LVDS

OEM Connector: 13871470

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M 2.0 Mini B USB Type (GY)

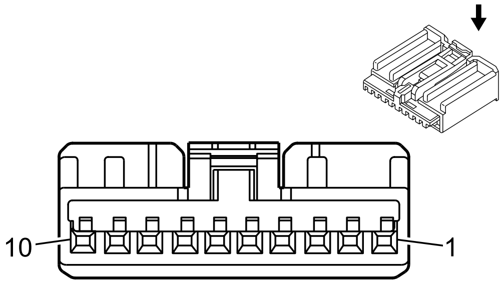
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P22B Video Display - 3rd Row X1 (DNU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Video Display Signal	I	—

P22B Video Display - 3rd Row X2 (DNU)



Connector Part Information

Harness Type: Headliner

OEM Connector: 13631701

Service Connector: 19329934

Description: 10-Way F 0.64 Kaizen Series (GY)

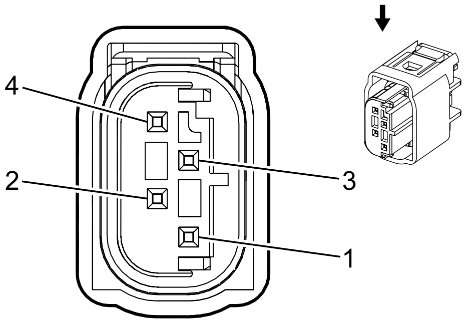
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327119	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P22B Video Display - 3rd Row X2 (DNU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/L-GN	7558	LED Ambient Lighting Control 2	I	-
2	0.5	BK	1050	Ground	I	-
3	0.5	GY	157	Interior Lamp Control	I	-
4	0.5	YE	6817	LED Backlight Dimming Control	I	-
5	0.5	WH/BN	6815	Inadvertent Power Control	I	-
6-7	-	-	-	Not Occupied	-	-
8	0.5	BK	2550	Ground	I	-
9	0.5	L-GN/YE	7066	Entertainment Remote Enable Signal	I	-
10	0.5	RD/L-GN	1540	Battery Positive Voltage	I	-

P25 Power Sounder Content Theft Deterrent Alarm Module (UTT)



Connector Part Information

Harness Type: Body

OEM Connector: 13679454

Service Connector: 19301725

Description: 4-Way F 0.64 Micro Quadlok Series, Sealed (BK)

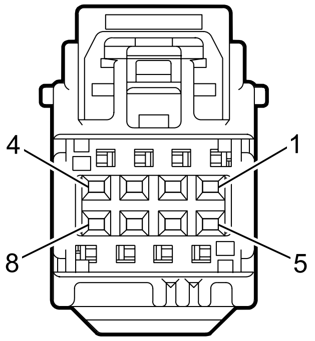
Terminal Part Information

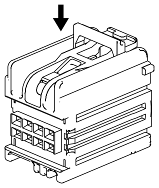
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P25 Power Sounder Content Theft Deterrent Alarm Module (UTT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	RD/D-BU	4540	Battery Positive Voltage	I	-
3	0.5	L-GN/D-BU	6133	Linear Interconnect Network Bus 2	I	-
4	0.5	BK	1150	Ground	I	-

P29 Heads-Up Display X1 (UV6)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13518475

Service Connector: 13576542

Description: 8-Way F YESC Kaizen Series (BK)

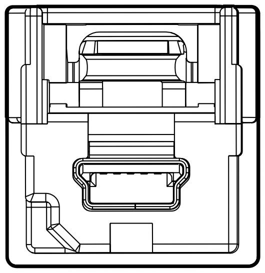
Terminal Part Information

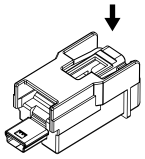
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P29 Heads-Up Display X1 (UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/BK	3894	Linear Interconnect Network Bus 12	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	YE/WH	622	Head Up Display Switch Signal	I	-
4	0.35	BK/WH	1851	Signal Ground	I	-
5	-	-	-	Not Occupied	-	-
6	0.5	RD/GY	2840	Battery Positive Voltage	I	-
7	-	-	-	Not Occupied	-	-
8	0.35	BK/L-GN	5699	Head Up Display Switch Low Reference	I	-

P29 Heads Up Display X2 (UV6)





Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13584751

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M USB Type (BK)

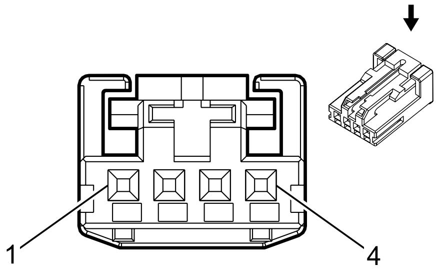
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

P29 Heads Up Display X2 (UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	Head-up Display Signal	I	—

P43 Collision Alert Indicators (UEU or UFL without UV6)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13853727

Service Connector: 19300597

Description: 4-Way F 0.64 Micro Quadlock Series (BK)

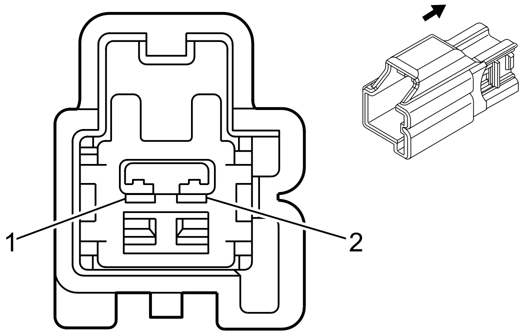
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

P43 Collision Alert Indicators (UEU or UFL without UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	-
2	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	-
3	0.35	WH/L-GN	3535	Reflected LED Display Dimming Control	I	-
4	0.35	BK/WH	1851	Signal Ground	I	-

P45LR Seat Haptic Movement Motor - Driver Left Rear (UEU, UFL or UGN)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 13580902

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 1.5 Series (L-GY)

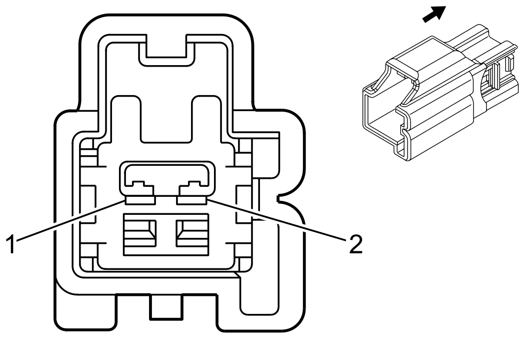
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P45LR Seat Haptic Movement Motor - Driver Left Rear (UEU, UFL or UGN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	3037	Left Rear Haptic Seat Motor Control	I	-
2	0.5	BK	1150	Ground	I	-

P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU, UFL or UGN)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 13580902

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 1.5 Series (L-GY)

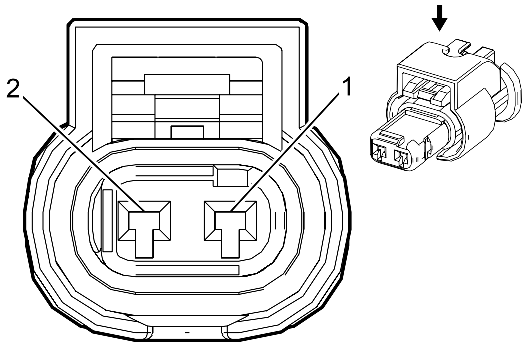
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU, UFL or UGN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3038	Right Rear Haptic Seat Motor Control	I	-
2	0.5	BK	1150	Ground	I	-

Q2 A/C Compressor Clutch



Connector Part Information

Harness Type: Engine

OEM Connector: 13927761

Service Connector: 19329415

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK with BK Inner Connector)

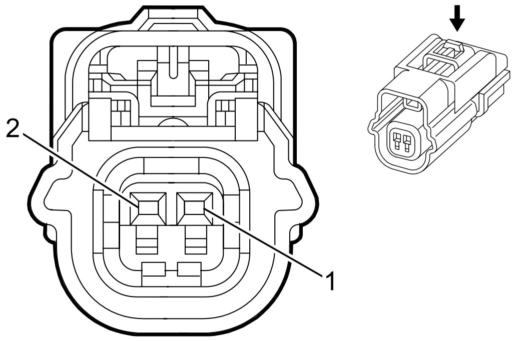
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q2 A/C Compressor Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	550	Ground	I	-
2	0.75	BN/L-GN	59	A/C Compressor Clutch Supply Voltage	I	-

Q6 Camshaft Position Actuator Solenoid Valve



Connector Part Information

Harness Type: Camshaft Jumper

OEM Connector: 54390239

Service Connector: 13585856

Description: 2-Way F Kaizen 64 Series, Sealed (BK)

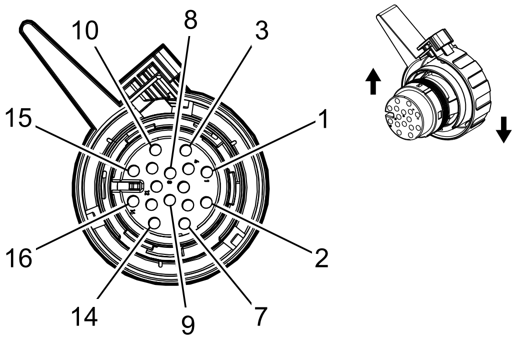
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q6 Camshaft Position Actuator Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6753	Cam Phaser W Return Low Reference	I	-
2	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid (1)	I	-

Q8 Control Solenoid Valve Assembly X1 (MYC)



Connector Part Information

Harness Type: Engine

OEM Connector: 13878751

Service Connector: 19303772

Description: 16-Way F 1.5 Series, Sealed (BK)

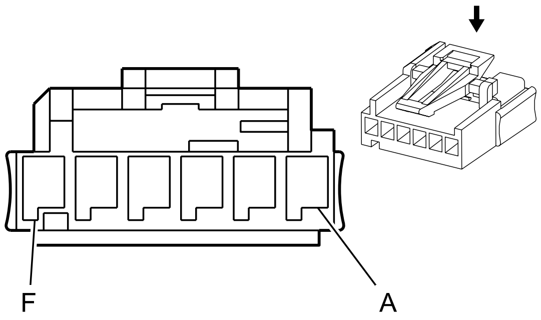
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578920	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q8 Control Solenoid Valve Assembly X1 (MYC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.5	WH/GY	1786	Transmission Park/Neutral Signal (1)	I	-
4	0.75	RD/L-GN	1840	Battery Positive Voltage	I	-
5	0.75	BK/WH	451	Signal Ground	I	-
6-8	-	-	-	Not Occupied	-	-
9	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	-
10	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
11	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
12	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	-
13	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
14	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
15	-	-	-	Not Occupied	-	-
16	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	I	-

Q8 Control Solenoid Valve Assembly X2 (MYC)



Connector Part Information

Harness Type: Transmission

OEM Connector: 15336500

Service Connector: 89046635

Description: 6-Way F Metri Pack 150.2 Series (GN)

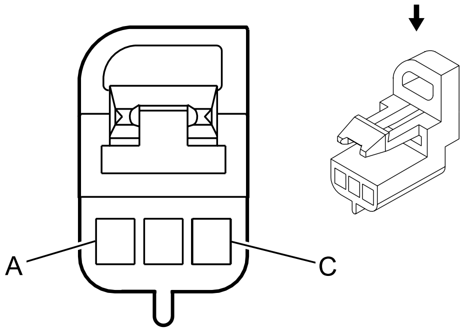
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness – See Part Catalog	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q8 Control Solenoid Valve Assembly X2 (MYC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	GY	—	Ground	I	-
B	0.35	BK	—	Transmission Range Switch Signal P	I	-
C	0.35	YE	—	Transmission Range Switch Signal C	I	-
D	0.35	RD	—	Transmission Range Switch Signal B	I	-
E	0.35	GN	—	Transmission Range Switch Signal A	I	-
F	0.35	WH	—	Park/Neutral Switch Signal	I	-

Q8 Control Solenoid Valve Assembly X3 (MYC)



Connector Part Information

Harness Type: Transmission

OEM Connector: 13539487

Service Connector: Service by Harness – See Part Catalog

Description: 3-Way F Metri Pack 150 Series (BK)

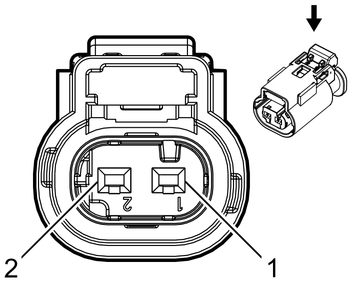
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Service by Harness – See Part Catalog	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q8 Control Solenoid Valve Assembly X3 (MYC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	GN	—	Input Speed Sensor (ISS) Signal	I	-
B	0.35	RD	—	ISS/OSS Supply Voltage	I	-
C	0.35	BK	—	Output Speed Sensor (OSS) Signal	I	-

Q12 Evaporative Emission Purge Solenoid Valve



Connector Part Information

Harness Type: Engine

OEM Connector: 13735326

Service Connector: 13587326

Description: 2-Way F 1.2 MLK Series, Sealed (BK)

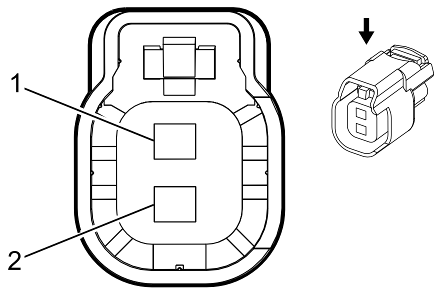
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q12 Evaporative Emission Purge Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/D-BU	5293	Powertrain Main Relay Fused Supply (4)	I	-
2	0.5	L-GN/D-BU	428	EVAP Canister Purge Solenoid Control	I	-

Q13 Evaporative Emission Vent Solenoid Valve



Connector Part Information

Harness Type: Chassis

OEM Connector: 13771883

Service Connector: 13579002

Description: 2-Way F 1.5 Series, Sealed (BK)

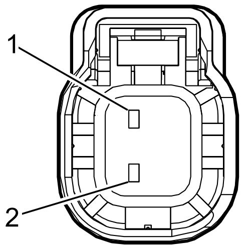
Terminal Part Information

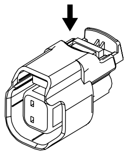
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q13 Evaporative Emission Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	-
2	0.5	RD/L-GN	1840	Battery Positive Voltage	I	-

Q17A Fuel Injector 1





Connector Part Information

Harness Type: Fuel Injector − Odd

OEM Connector: 34062-4008

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

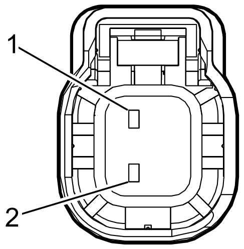
Terminal Part Information

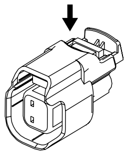
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/WH	4901	Ignition Voltage	I	-
2	0.75	BN	4801	Fuel Injector 1 Control	I	-

Q17B Fuel Injector 2





Connector Part Information

Harness Type: Fuel Injector – Even

OEM Connector: 34062-4008

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

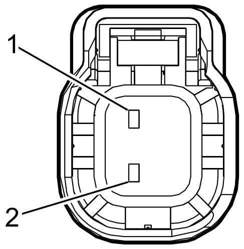
Terminal Part Information

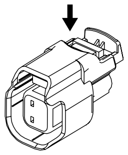
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	L-BU/GY	4902	Ignition Voltage	I	-
2	0.75	L-BU	4802	Fuel Injector 2 Control	I	-

Q17C Fuel Injector 3





Connector Part Information

Harness Type: Fuel Injector - Odd

OEM Connector: 34062-4008

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

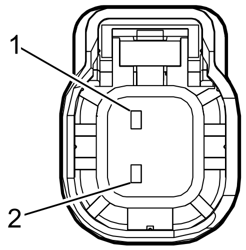
Terminal Part Information

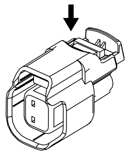
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	L-GN/GY	4903	Ignition Voltage	I	-
2	0.75	L-GN	4803	Fuel Injector 3 Control	I	-

Q17D Fuel Injector 4





Connector Part Information

Harness Type: Fuel Injector − Even

OEM Connector: 34062-4008

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

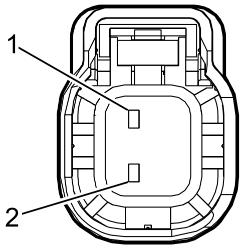
Terminal Part Information

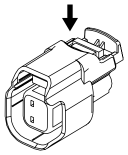
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	L-BU/WH	4904	Ignition Voltage	I	-
2	0.75	GY/L-BU	4804	Fuel Injector 4 Control	I	-

Q17E Fuel Injector 5





Connector Part Information

Harness Type: Fuel Injector – Odd

OEM Connector: 34062-4008

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

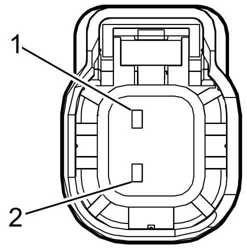
Terminal Part Information

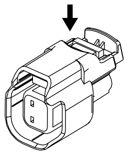
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17E Fuel Injector 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	L-GN/WH	4905	Ignition Voltage	I	-
2	0.75	WH/L-GN	4805	Fuel Injector 5 Control	I	-

Q17F Fuel Injector 6





Connector Part Information

Harness Type: Fuel Injector − Even

OEM Connector: 34062-4008

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

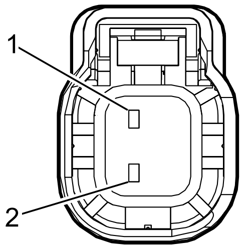
Terminal Part Information

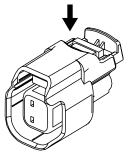
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17F Fuel Injector 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GY	4906	Ignition Voltage	I	-
2	0.75	VT/L-GN	4806	Fuel Injector 6 Control	I	-

Q17G Fuel Injector 7





Connector Part Information

Harness Type: Fuel Injector − Odd

OEM Connector: 34062-4008

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

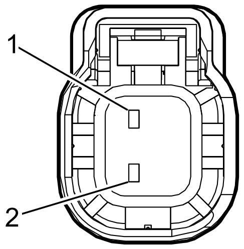
Terminal Part Information

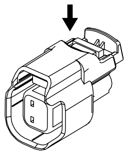
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17G Fuel Injector 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/YE	4907	Ignition Voltage	I	-
2	0.75	YE/GY	4807	Fuel Injector 7 Control	I	-

Q17H Fuel Injector 8





Connector Part Information

Harness Type: Fuel Injector − Even

OEM Connector: 34062-4008

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way F 1.5 Series Sealed (BK)

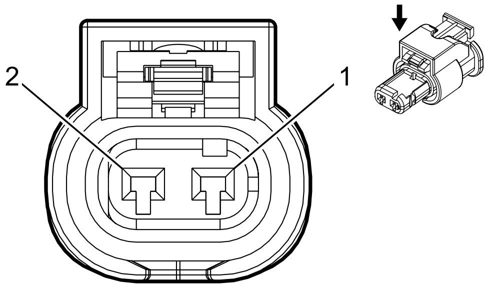
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q17H Fuel Injector 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY/WH	4908	Ignition Voltage	I	-
2	0.75	GY	4808	Fuel Injector 8 Control	I	-

Q37LF Shock Absorber Actuator - Left Front (Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13627836

Service Connector: 13587957

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

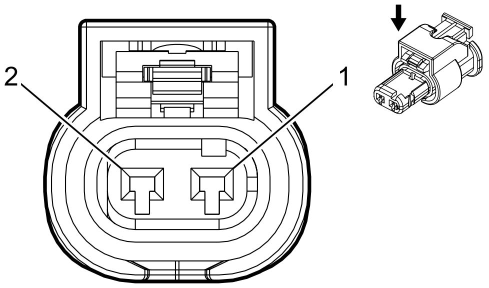
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q37LF Shock Absorber Actuator - Left Front (Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/GY	1448	Left Front Strut Motor Increase Damping	I	-
2	0.75	WH/L-GN	1005	Left Front Strut Motor Decrease Damping Control	I	-

Q37LR Shock Absorber Actuator - Left Rear (Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13627836

Service Connector: 13587957

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

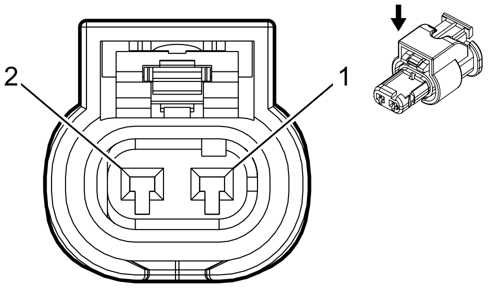
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q37LR Shock Absorber Actuator - Left Rear (Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/VT	1010	Left Rear Strut Motor Increase Damping Control	I	-
2	0.75	WH/BK	1013	Left Rear Strut Motor Decrease Damping Control	I	-

Q37RF Shock Absorber Actuator - Right Front (Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13627836

Service Connector: 13587957

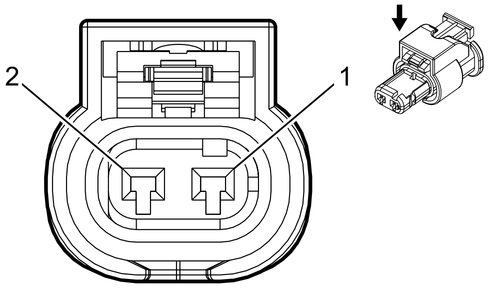
Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q37RF Shock Absorber Actuator - Right Front (Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BK	1006	Right Front Strut Motor Increase Damping Control	I	-
2	0.75	BN	1009	Right Front Strut Motor Decrease Damping Control	I	-



Connector Part Information

Harness Type: Chassis

OEM Connector: 13627836

Service Connector: 13587957

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

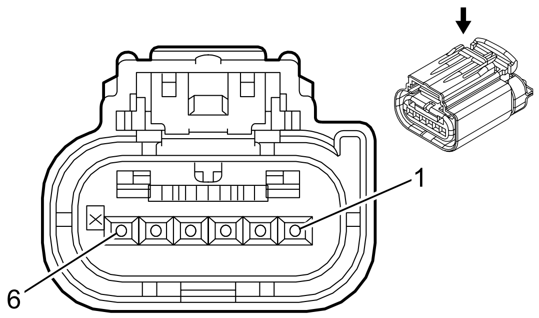
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q37RR Shock Absorber Actuator - Right Rear (Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	1014	Right Rear Strut Motor Increase Damping	I	-
2	0.75	VT	1017	Right Rear Strut Motor Decrease Damping	I	-

Q38 Throttle Body



Connector Part Information

Harness Type: Engine

OEM Connector: 13699991

Service Connector: 13581267

Description: 6-Way F 0.64 GET Series, Sealed (BK)

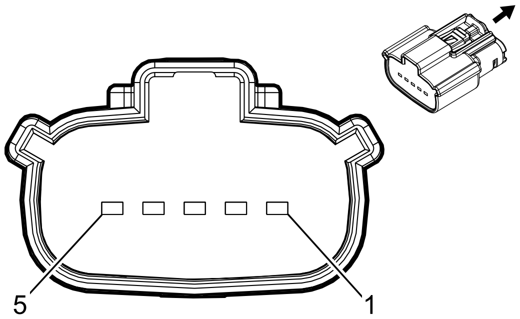
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Control Open	I	-
2	0.5	BN/WH	582	Throttle Actuator Control Close	I	-
3	0.5	D-BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	-
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	-
5	0.5	BN/RD	2701	Throttle Position Sensor 5 Volt Reference	I	-
6	-	-	-	Not Occupied	-	-

Q43 Valve Lifter Oil Manifold Assembly



Connector Part Information

Harness Type: Engine

OEM Connector: 13845946

Service Connector: 19301719

Description: 5-Way F 150 MX Series, Sealed (BK)

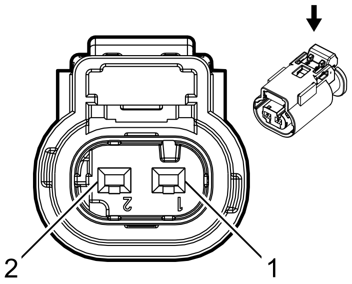
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q43 Valve Lifter Oil Manifold Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/D-BU	5494	Cylinder Shutoff Solenoid Control (4)	I	-
2	0.5	GY	5493	Cylinder Shutoff Solenoid Control (3)	I	-
3	0.5	D-BU	5491	Cylinder Shutoff Solenoid Control (1)	I	-
4	0.75	VT/D-BU	5293	Powertrain Main Relay Fused Supply (4)	I	-
5	0.5	L-GN	5492	Cylinder Shutoff Solenoid Control (2)	I	-

Q44 Engine Oil Pressure Control Solenoid Valve



Connector Part Information

Harness Type: Camshaft Jumper

OEM Connector: 13503566

Service Connector: 13587326

Description: 2-Way F 1.2 MLK Series, Sealed (BK)

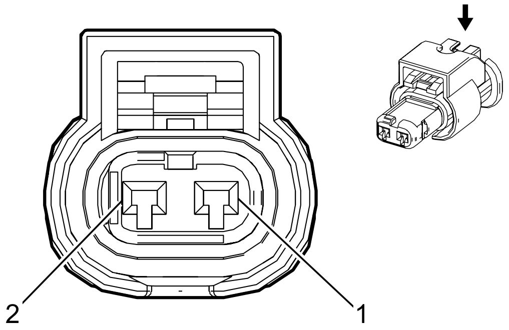
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Q44 Engine Oil Pressure Control Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/L-BU	5293	Powertrain Main Relay Fused Supply (4)	I	-
2	0.5	L-BU	179	Oil Pump Command Signal	I	-

Q46 A/C Compressor Solenoid Valve



Connector Part Information

Harness Type: Engine

OEM Connector: 13927762

Service Connector: 19299928

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK with NA Inner Connector)

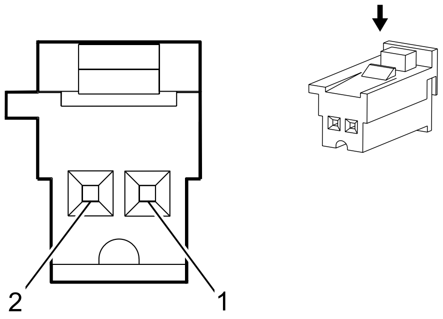
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q46 A/C Compressor Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU/YE	7574	Electric Variable Displacement Control	I	-
2	0.75	D-BU/BN	7573	Electric Variable Displacement Supply	I	-

Q77A Transmission Control Solenoid Valve 1 (M5U)



Connector Part Information

Harness Type: Transmission Control

OEM Connector: 13956948

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F 0.64 MTS Series (VT)

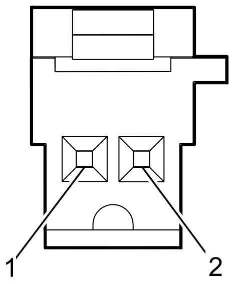
Terminal Part Information

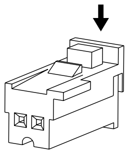
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q77A Transmission Control Solenoid Valve 1 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	6400	Clutch A Control	I	-
2	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	-

Q77B Transmission Control Solenoid Valve 2 (M5U)





Connector Part Information

Harness Type: Transmission Control

OEM Connector: 13941672

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F 0.64 MTS Series (GY)

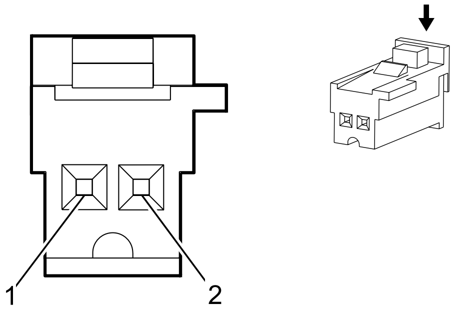
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q77B Transmission Control Solenoid Valve 2 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	6401	Clutch B Control	I	-
2	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	-

Q77C Transmission Control Solenoid Valve 3 (M5U)



Connector Part Information

Harness Type: Transmission Control

OEM Connector: 13941672

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F 0.64 MTS Series (GY)

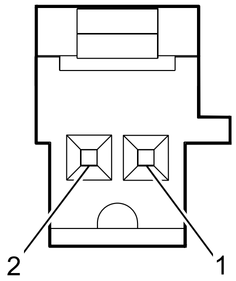
Terminal Part Information

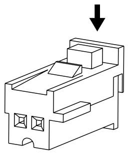
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q77C Transmission Control Solenoid Valve 3 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	6402	Clutch C Control	I	-
2	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	-

Q77D Transmission Control Solenoid Valve 4 (M5U)





Connector Part Information

Harness Type: Transmission Control

OEM Connector: 13947283

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F 0.64 MTS Series (NA)

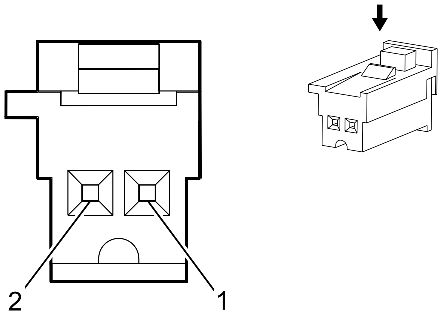
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q77D Transmission Control Solenoid Valve 4 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4508	Transmission Clutch G Control	I	-
2	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	-

Q77E Transmission Control Solenoid Valve 5 (M5U)



Connector Part Information

Harness Type: Transmission Control

OEM Connector: 13956948

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F 0.64 MTS Series (VT)

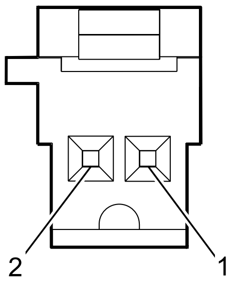
Terminal Part Information

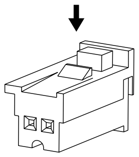
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q77E Transmission Control Solenoid Valve 5 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	4507	Transmission Clutch H Control	I	-
2	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	-

Q77F Transmission Control Solenoid Valve 6 (M5U)





Connector Part Information

Harness Type: Transmission Control

OEM Connector: 13956948

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F 0.64 MTS Series (VT)

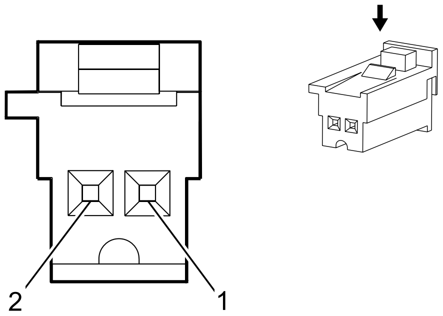
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q77F Transmission Control Solenoid Valve 6 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/GN	6403	Clutch D Control	I	-
2	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	-

Q77G Transmission Control Solenoid Valve 7 (M5U)



Connector Part Information

Harness Type: Transmission Control

OEM Connector: 13941672

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F 0.64 MTS Series (GY)

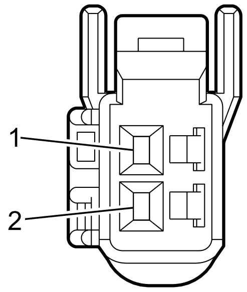
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Q77G Transmission Control Solenoid Valve 7 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	6404	Clutch E Control	I	-
2	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	-

Q77H Transmission Control Solenoid Valve 8 (M5U)



Connector Part Information

Harness Type: Transmission Control

OEM Connector: 7287–0122

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F040 III Series (NA)

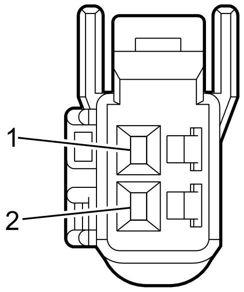
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	J-38125-553	Not Available	Not Available	Not Available	Not Available

Q77H Transmission Control Solenoid Valve 8 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	-
2	0.5	GN/WH	6380	TCC On/Off Solenoid A Control	I	-

Q77J Transmission Control Solenoid Valve 9 (M5U)



Connector Part Information

Harness Type: Transmission Control

OEM Connector: 7287–0122

Service Connector: Service by Harness — See Part Catalog

Description: 2–Way F040 III Series (NA)

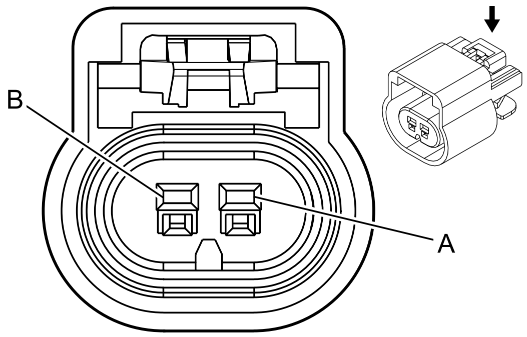
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	J-38125-553	Not Available	Not Available	Not Available	Not Available

Q77J Transmission Control Solenoid Valve 9 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	-
2	0.5	YE/BN	6210	TCC On/Off Solenoid B Control	I	-

R6A Terminating Resistor - High Speed Bus (without J71, JL1, Z85 or Z95)



Connector Part Information

Harness Type: Chassis

OEM Connector: 13510085

Service Connector: 13580114

Description: 2-Way F 150 GT Series, Sealed (BK)

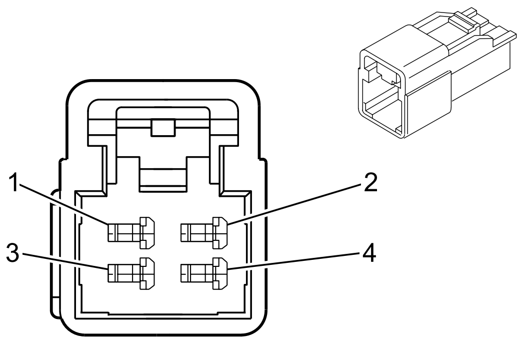
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

R6A Terminating Resistor - High Speed Bus (without J71, JL1, Z85 or Z95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
B	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-

S3 Transmission Shift Lever



Connector Part Information

Harness Type: Steering Column

OEM Connector: HCMDWSB-04-K

Service Connector: Service by Harness — See Part Catalog

Description: 4-Way M, HCM Series (BK)

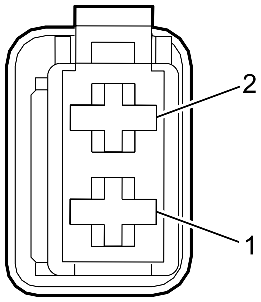
Terminal Part Information

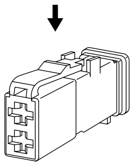
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S3 Transmission Shift Lever

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GY	553	Shift Select Switch Performance Signal	I	-
2	0.5	BK/WH	1851	Ground	I	-
3	0.5	VT/YE	5526	Tap Up/Tap Down Switch Signal	I	-
4	0.5	BK/WH	1851	Ground	I	-

S5 Center Console Compartment Lamp Switch (D07)





Connector Part Information

Harness Type: Floor Console

OEM Connector: 10787635

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 Timer Series (NA)

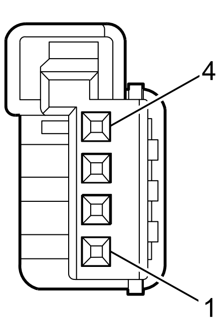
Terminal Part Information

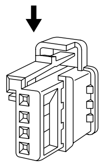
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S5 Center Console Compartment Lamp Switch (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	6815	Inadvertent Power Control	I	-
2	0.5	WH/BN	6815	Inadvertent Power Control	I	-

S12 Dome Lamp Switch





Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13862319

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlok Series (BN)

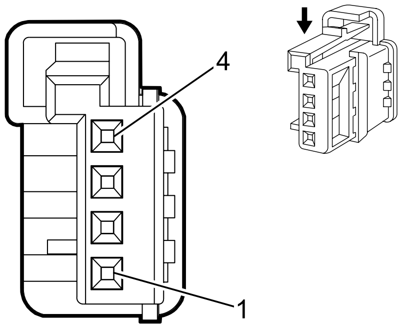
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S12 Dome Lamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1050	Ground	I	-
2	0.35	GY/L-GN	328	Interior Lamp Defeat Switch Signal	I	-
3	0.35	GY	156	Courtesy Lamp Switch Signal	I	-
4	0.35	YE	6817	LED Backlight Dimming Control	I	-

S13D Door Lock Switch - Driver (X88 or Z88)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13597457

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (WH)

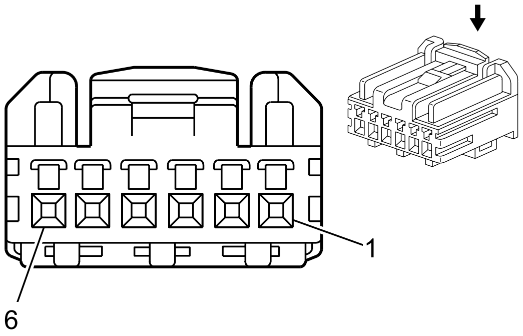
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S13D Door Lock Switch - Driver (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	-
2	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	I	-
3	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	I	-
4	0.35	BK	1150	Ground	I	-

S13D Door Lock Switch - Driver (Z75)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 15484551

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 HCM Series (BK)

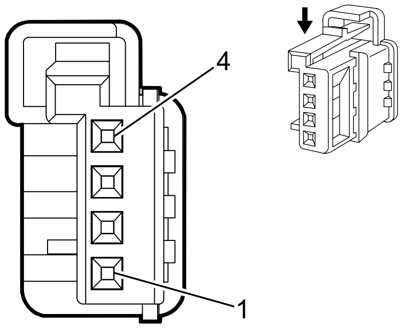
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S13D Door Lock Switch - Driver (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	-
2	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	I	-
3	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	I	-
4	0.35	BK	1150	Ground	I	-
5	0.35	WH	6816	Indicator Dimming Control	I	-
6	0.35	WH/VT	3270	Driver Door Lock Motor Status	I	-

S13P Door Lock Switch - Passenger (X88 or Z88)



Connector Part Information

Harness Type: Passenger Door Trim

OEM Connector: 13597457

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (WH)

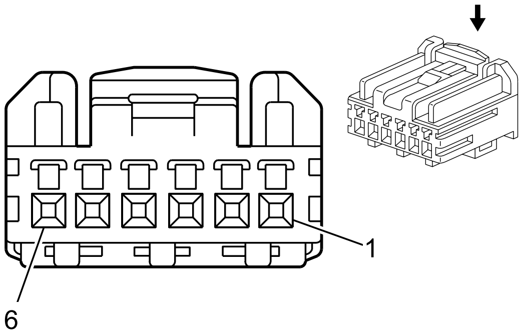
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S13P Door Lock Switch - Passenger (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	-
2	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	I	-
3	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	I	-
4	0.35	BK	1250	Ground	I	-

S13P Door Lock Switch - Passenger (Z75)



Connector Part Information

Harness Type: Passenger Door Trim

OEM Connector: 15484551

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 HCM Series (BK)

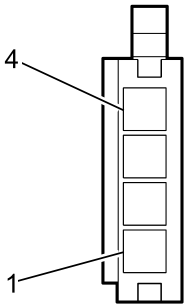
Terminal Part Information

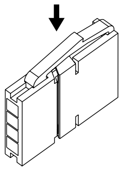
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S13P Door Lock Switch - Passenger (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	-
2	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	I	-
3	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	I	-
4	0.35	BK	1250	Ground	I	-
5	0.35	WH	6816	Indicator Dimming Control	I	-
6	0.35	VT	4009	Co-Driver Door Lock Status	I	-

S25 Garage Door Opener (UG1)





Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13879342

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F f13601803 (BK)

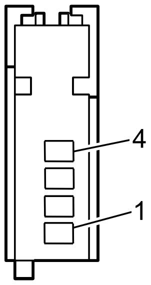
Terminal Part Information

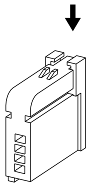
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S25 Garage Door Opener (UG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/YE	240	Battery Positive Voltage	I	-
2	0.35	YE	6817	LED Backlight Dimming Control	I	-
3	-	-	-	Not Occupied	-	-
4	0.35	BK	1050	Ground	I	-

S27 Head-Up Display Switch (UV6)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13541539

Service Connector: 13585622

Description: 4-Way F AIT II Series (BK)

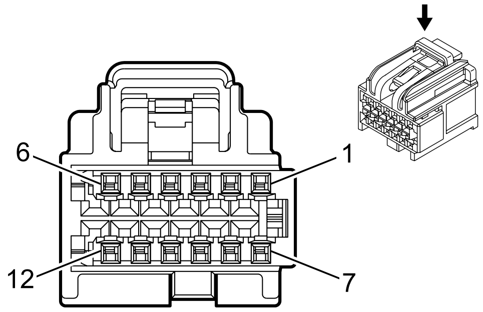
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S27 Head-Up Display Switch (UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	6817	LED Backlight Dimming Control	I	-
2	0.35	BK/WH	1851	Signal Ground	I	-
3	0.35	BK/L-GN	5699	Head Up Display Switch Low Reference	I	-
4	0.35	YE/WH	622	Head Up Display Switch Signal	I	-

S30 Headlamp Switch



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13782625

Service Connector: 19301730

Description: 12-Way F 0.64 Series (BK)

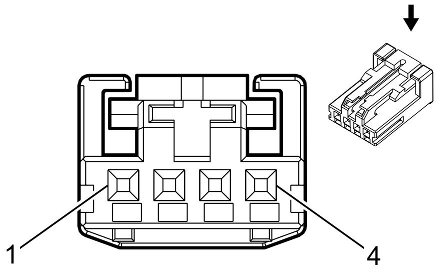
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13587581	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	103	Headlamp Switch On Signal	I	-
2	0.5	YE	6817	LED Backlight Dimming Control	I	-
3	0.35	L-GN/BN	306	Headlamp Switch Headlamps Off Signal Control	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	L-GN/GY	13	Headlamp Switch Park Lamp Signal	I	-
6	0.35	D-BU/GY	187	Rear Fog Lamp Switch Signal	I	T79
7	0.35	BK/YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	I	-
8	0.75	BK	1850	Ground	I	-
9	-	-	-	Not Occupied	-	-
10	0.35	D-BU/GY	192	Front Fog Lamp Switch Signal	I	T3U
11	0.35	YE/GY	44	Instrument Panel Lamp Dimmer Switch Signal	I	-
12	0.35	D-BU/RD	1688	5 Volt Reference	I	-

S31D Seat Heating and Cooling Switch - Driver (KA1 or KB6, without Z75)



Connector Part Information

Harness Type: Driver Seat

OEM Connector: 13853727

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (BK)

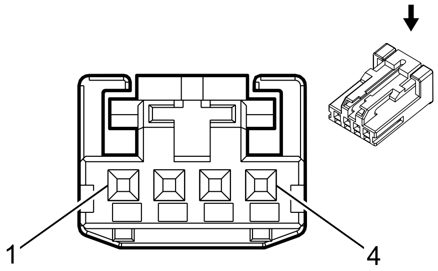
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S31D Seat Heating and Cooling Switch - Driver (KA1 or KB6, without Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1850	Ground	I	-
2	0.35	L-GN/WH	7527	Linear Interconnect Network Bus 5	I	-
3	0.5	L-GN/WH	7527	Linear Interconnect Network Bus 5	I	-
4	0.35	RD/GY	2840	Battery Positive Voltage	I	-

S31P Seat Heating and Cooling Switch - Passenger (KA1 or KB6, without Z75)



Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 13853727

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (BK)

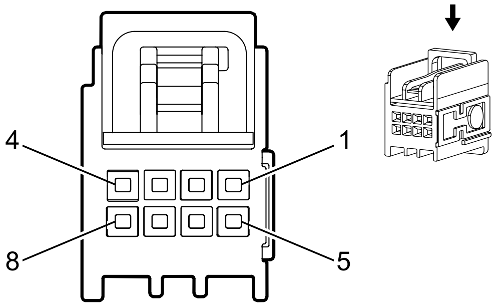
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S31P Seat Heating and Cooling Switch - Passenger (KA1 or KB6, without Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GY	2840	Battery Positive Voltage	I	-
2	0.5	L-GN/WH	7527	Linear Interconnect Network Bus 5	I	-
3	0.35	L-GN/WH	7527	Linear Interconnect Network Bus 5	I	-
4	0.5	BK	1850	Ground	I	-

S38 Ignition Mode Switch (BTM)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10890122

Service Connector: 13576543

Description: 8-Way F 0.64 Series (BK)

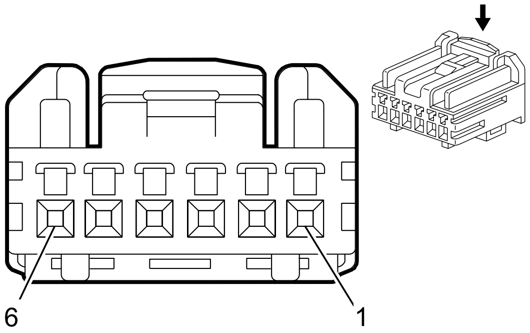
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S38 Ignition Mode Switch (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.35	BN/BK	5720	Ignition Mode Switch Accessory LED Signal	I	-
3	0.35	L-GN/BK	3558	Passive Start Switch Signal 2	I	-
4	0.35	BK/WH	1851	Signal Ground	I	-
5	0.35	D-BU/BK	5719	Ignition Mode Switch Start LED Signal	I	-
6	0.35	D-BU/L-GN	5723	Ignition Mode Switch Mode Voltage	I	-
7	0.35	BK/GY	3559	Passive Start Switch 2 Low Reference	I	-
8	0.35	YE	6817	LED Backlight Dimming Control	I	-

S39 Ignition Switch (without BTM)



Connector Part Information

Harness Type: Steering Column

OEM Connector: HCMPB-C06-K

Service Connector: 19153174

Description: 6-Way F 0.64 HCM Series (BK)

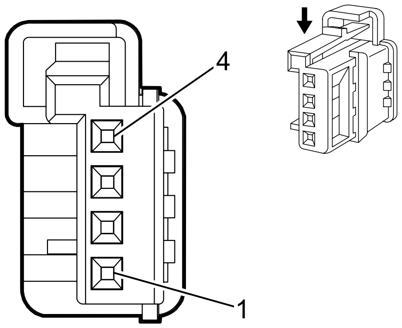
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S39 Ignition Switch (without BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	VT/BK	3	Run/Crank Ignition 1 Voltage	I	-
3	0.5	VT/YE	4	Accessory Voltage	I	-
4	0.5	RD/D-BU	540	Battery Positive Voltage	I	-
5	0.5	WH/VT	1020	Off/Run/Crank Voltage	I	-
6	0.5	WH/BK	1073	Ignition Key Resistor Signal	I	-

S43 Theft Deterrent Sensor Disable Switch (UTT)



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 10866875

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlock Series (BU)

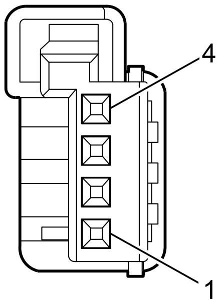
Terminal Part Information

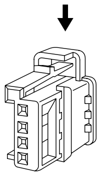
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S43 Theft Deterrent Sensor Disable Switch (UTT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/BK	5068	Intrusion Sensor Switch Disable Signal	I	-
2	0.35	BK	1050	Ground	I	-
3	0.35	YE	6817	LED Backlight Dimming Control	I	-
4	0.35	YE/D-BU	3278	Intrusion Sensor Switch LED Control	I	-

S45B Liftgate Control Switch - Interior (TB5 or TC2)





Connector Part Information

Harness Type: Overhead Console

OEM Connector: 10768790

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 Micro Quadlok Series (BK)

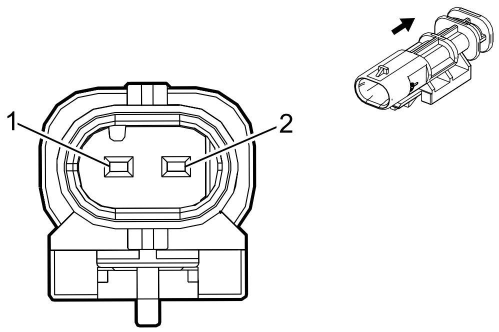
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S45B Liftgate Control Switch - Interior (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1050	Ground	I	-
2	0.5	YE	6817	LED Backlight Dimming Control	I	-
3	0.35	L-GN	6112	Power Lift Gate On/Off Switch Signal	I	-
4	0.35	GY/BK	6113	Rear Lift Gate Open/Close Switch Signal	I	-

S46 Liftgate Handle Switch (TB5 or TC2)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13788295

Service Connector: Service by Harness — See Part Catalog

Description: 2-Way M 1.2 MLK Series, Sealed (BK)

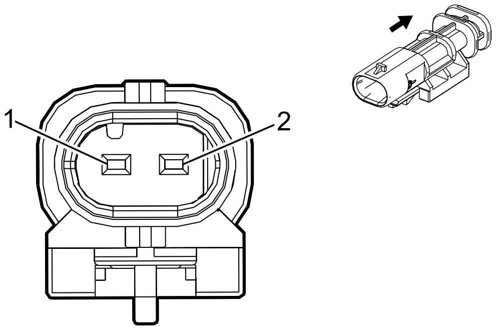
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S46 Liftgate Handle Switch (TB5 or TC2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/VT	5801	Lift Gate Object Sensor Low Reference	I	-
2	0.35	YE/D-BU	5797	Rear Closure Handle Switch Open Signal	I	-

S46B Liftgate Unlatch Switch (TB4)



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13788295

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 1.2 MLK Series, Sealed (BK)

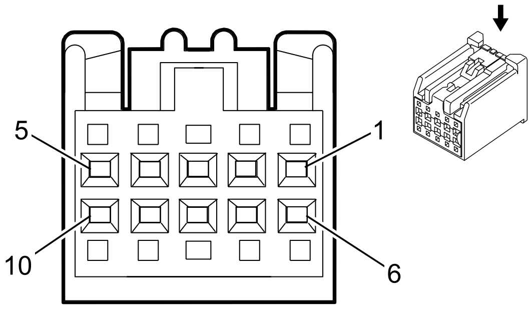
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S46B Liftgate Unlatch Switch (TB4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/D-BU	5797	Rear Closure Handle Switch Open Signal	I	-
2	0.35	BK	1450	Ground	I	-

S47D Seat Memory Switch - Driver (A45)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13815336

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 Kaizen Series (BK)

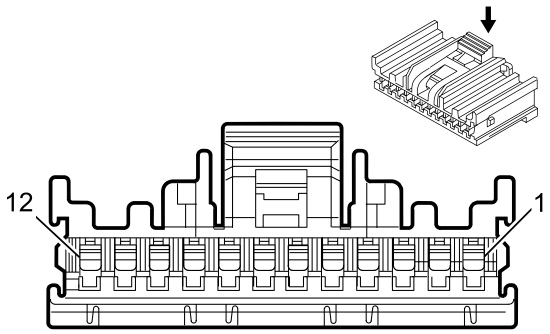
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S47D Seat Memory Switch - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/D-BU	5978	Memory Switch Low Reference	I	-
2	0.35	YE	6817	LED Backlight Dimming Control	I	-
3-4	-	-	-	Not Occupied	-	-
5	0.35	D-BU/L-GN	614	Memory Seat Switch Set Signal	I	-
6	0.35	WH	615	Memory Seat Switch Signal (1)	I	-
7-10	-	-	-	Not Occupied	-	-

S48A Multifunction Switch - Instrument Panel (X88 or Z88)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15499371

Service Connector: 19115105

Description: 12-Way F 0.64 Kaizen Series (BK)

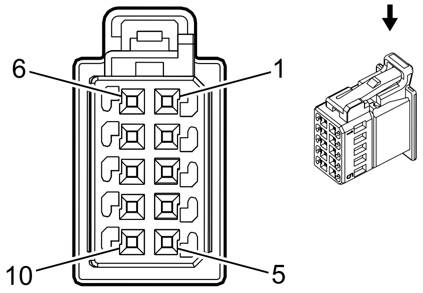
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13579945	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S48A Multifunction Switch - Instrument Panel (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.35	D-BU/VT	1788	Traction Control Switch Signal (1)	I	-
3	0.35	GY/L-GN	2555	Rear Park Assist Disable Signal	I	-
4	0.35	L-GN/BN	5852	Rear Park Assist LED Disable Signal	I	-
5	0.35	WH	6816	Indicator Dimming Control	I	-
6	0.35	WH	3152	Lane Departure Warning Indicator Control	I	-
7	0.35	YE	6817	LED Backlight Dimming Control	I	-
8	0.75 0.35	BK BK	1850 1850	Ground Ground	II	-
9	0.35	D-BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	I	-
10	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	-
11	0.35	L-GN/GY	5286	Adjustable Pedal Switch Forward Signal	I	-
12	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	I	-

S48C Multifunction Switch 1 - Instrument Panel (Z75)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13650061

Service Connector: 19299776

Description: 10-Way F 0.64 MQS Series (BK)

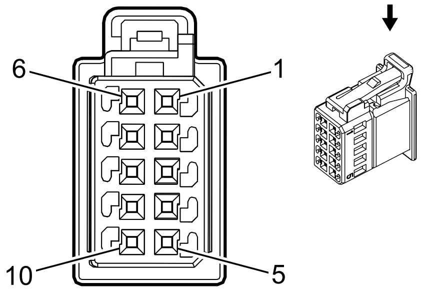
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575783	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575784	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S48C Multifunction Switch 1 - Instrument Panel (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	6816	Indicator Dimming Control	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	WH	6816	Indicator Dimming Control	I	-
4	0.35	WH/VT	4108	Driver Mode Switch Signal	I	-
5	0.75 0.35	BK BK	1850 1850	Ground Ground	II	-
6	0.35	L-GN/GY	5286	Adjustable Pedal Switch Forward Signal	I	-
7	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	I	-
8	0.5	RD/L-GN	1540	Battery Positive Voltage	I	-
9	-	-	-	Not Occupied	-	-
10	0.35	D-BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	I	-

S48D Multifunction Switch 2 - Instrument Panel (Z75)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13650061

Service Connector: 19299776

Description: 10-Way F 0.64 MQS Series (BK)

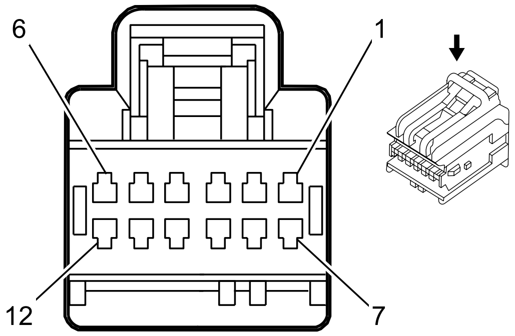
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575783	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575784	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S48D Multifunction Switch 2 - Instrument Panel (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.35	L-GN/BN	5852	Rear Park Assist LED Disable Signal	I	UD5 or UD7
3	0.35	WH	6816	Indicator Dimming Control	I	-
4	0.35	D-BU/VT	1788	Traction Control Switch Signal (1)	I	-
5	0.75	BK	1850	Ground	II	-
6	0.35	GY/L-GN	2555	Rear Park Assist Disable Signal	I	UD5 or UD7
7	0.35	L-GN/WH	4047	Glove Box Door Release Signal	I	-
8	0.5	RD/L-GN	1540	Battery Positive Voltage	I	-
9	0.35	WH	3152	Lane Departure Warning Indicator Control	I	UEU or UFL
10	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	UEU or UFL

S52 Outside Rearview Mirror Switch (A45 with Z75)



Connector Part Information

Harness Type: Driver Door

OEM Connector: 13889385

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 64 Series, Sealed (BN)

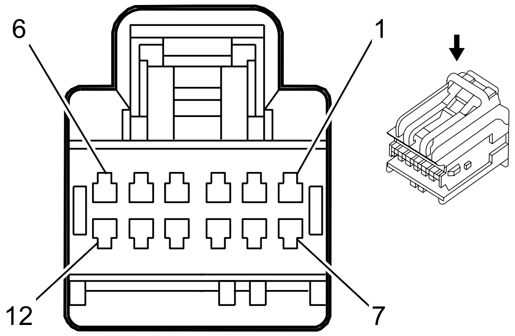
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

S52 Outside Rearview Mirror Switch (A45 with Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/BN	3394	Driver Mirror Position Sensor Up (+) Down (-) Signal	I	-
2	0.35	VT/RD	3392	Driver Mirror Position Sensor High Reference	I	-
3	0.35	BK	1150	Ground	I	-
4	0.35	VT/D-BU	3390	Driver Mirror Motor Up (+) Down (-) Control	I	-
5	0.5	WH/L-GN	3412	Driver Mirror Motor Fold In Control	I	DL3 or DR4
6	0.35	YE/BN	3391	Driver Mirror Motor Common Control	I	-
7	0.35	WH/YE	3395	Driver Mirror Position Sensor Left (-) Right (+) Signal	I	-
8	0.35	BK/BN	3393	Driver Mirror Position Sensor Low Reference	I	-
9	0.5	L-GN/WH	7530	Linear Interconnect Network Bus 8	I	-
10	0.35	RD/VT	1940	Battery Positive Voltage	I	-
11	0.35	BN/BK	3389	Driver Mirror Motor Right (+) Left (-) Control	I	-
12	0.5	GY/WH	3411	Driver Mirror Motor Fold Out Control	I	DL3 or DR4

S52 Outside Rearview Mirror Switch (A45 without Z75)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13889385

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 64 Series, Sealed (BN)

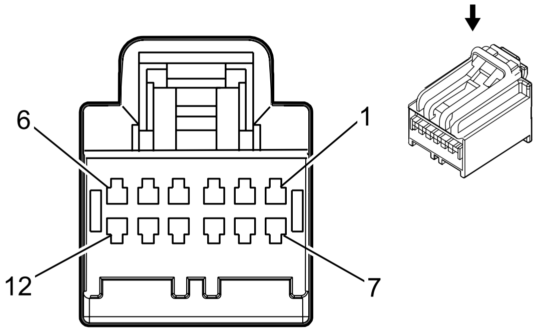
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S52 Outside Rearview Mirror Switch (A45 without Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/BN	3394	Driver Mirror Position Sensor Up (+) Down (-) Signal	I	-
2	0.35	VT/RD	3392	Driver Mirror Position Sensor High Reference	I	DL3 or DR4
3	0.35	BK	1150	Ground	I	-
4	0.35	VT/D-BU	3390	Driver Mirror Motor Up (+) Down (-) Control	I	-
5	0.5	WH/L-GN	3412	Driver Mirror Motor Fold In Control	I	-
6	0.35	YE/BN	3391	Driver Mirror Motor Common Control	I	-
7	0.35	WH/YE	3395	Driver Mirror Position Sensor Left (-) Right (+) Signal	I	-
8	0.35	BK/BN	3393	Driver Mirror Position Sensor Low Reference	I	-
9	0.5	L-GN/WH	7530	Linear Interconnect Network Bus 8	I	DL3 or DR4
10	0.35	RD/VT	1940	Battery Positive Voltage	I	-
11	0.35	BN/BK	3389	Driver Mirror Motor Right (+) Left (-) Control	I	-
12	0.5	GY/WH	3411	Driver Mirror Motor Fold Out Control	I	-

S52 Outside Rearview Mirror Switch (except A45)



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13587624

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 64 Series, Sealed (GY)

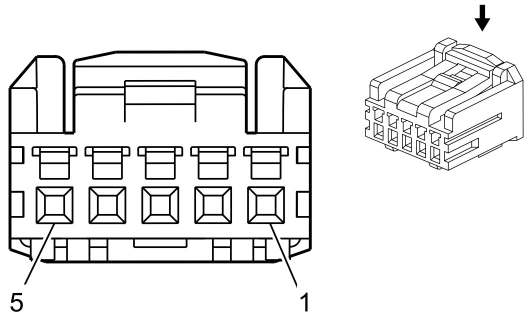
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S52 Outside Rearview Mirror Switch (except A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/VT	3397	Co-Driver Mirror Motor Up (+) Down (-) Control	I	-
2	0.5	WH/L-GN	3412	Driver Mirror Motor Fold In Control	I	-
3	0.35	YE/BN	3391	Driver Mirror Motor Common Control	I	-
4	0.35	L-GN/BK	3396	Co-Driver Mirror Motor Right (+) Left (-) Control	I	DL3 or DR4
5	0.5	BK	1150	Ground	I	-
6	0.35	YE	6817	LED Backlight Dimming Control	I	-
7	0.35	VT/D-BU	3390	Driver Mirror Motor Up (+) Down (-) Control	I	-
8	0.35	WH	3398	Co-Driver Mirror Motor Common Control	I	-
9	0.5	GY/WH	3411	Driver Mirror Motor Fold Out Control	I	-
10	0.35	BN/BK	3389	Driver Mirror Motor Right (+) Left (-) Control	I	-
11	-	-	-	Not Occupied	-	-
12	0.35	RD/VT	1940	Battery Positive Voltage	I	DL3 or DR4

S63 Roof Beacon Switch (TRW)



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 15491277

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way F HCM Series (BK)

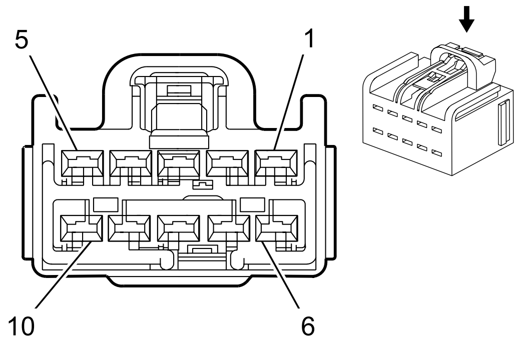
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S63 Roof Beacon Switch (TRW)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1050	Ground	I	-
2	0.5	YE	6817	LED Backlight Dimming Control	I	-
3	0.5	RD/YE	240	Battery Positive Voltage	I	-
4	0.5	WH/BK	5990	Emergency Lamp Switch Signal	I	-
5	-	-	-	Not Occupied	-	-

S64D Seat Adjuster Switch - Driver X1 (without A45)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-6457-40

Service Connector: 19167919

Description: 10-Way F Kaizen YESC Series (L-GY)

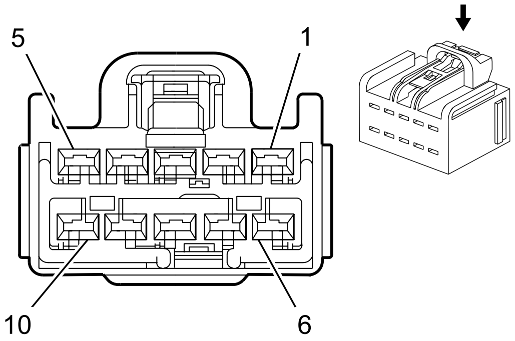
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S64D Seat Adjuster Switch - Driver X1 (without A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	-
2	2.5	BK	1150	Ground	I	-
3	1.5	YE/L-BU	285	Driver Power Seat Horizontal Motor Forward Control	I	-
4	1.5	L-GN/YE	276	Driver Power Seat Recline Motor Forward Control	I	-
5	1.5	L-BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	-
6	2.5	RD/YE	5040	Battery Positive Voltage	I	-
7	1.5	GY/L-GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	-
8	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	-
9	1.5	L-BU/YE	277	Driver Power Seat Recline Motor Rearward Control	I	-
10	1.5	GY/L-BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	-

S64D Seat Adjuster Switch - Driver X1 (A45)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-6457-40

Service Connector: 19167919

Description: 10-Way F Kaizen YESC Series (L-GY)

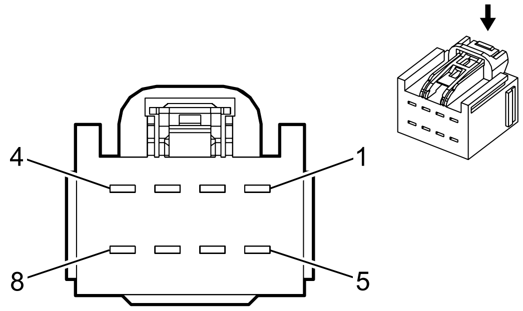
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S64D Seat Adjuster Switch - Driver X1 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/BN	1518	Power Seat Front Vertical Up Switch Signal	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	YE/BN	1522	Power Seat Horizontal Forward Switch Signal	I	-
4	0.5	GY/BK	1269	Power Seat Recline Forward Switch Signal	I	-
5	0.5	L-BU/VT	1520	Power Seat Front Vertical Down Switch Signal	I	-
6	0.35	BK	1150	Ground	I	-
7	0.5	GY/L-GN	1523	Power Seat Horizontal Rearward Switch Signal	I	-
8	0.5	YE	1519	Power Seat Rear Vertical Up Switch Signal	I	-
9	0.5	L-GN/GY	1270	Power Seat Recline Rearward Switch Signal	I	-
10	0.5	YE/L-BU	1521	Power Seat Rear Vertical Down Switch Signal	I	-

S64D Seat Adjuster Switch - Driver X2 (without A45)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-3243-40

Service Connector: 13581036

Description: 8–Way F 2.8 Series (L-GY)

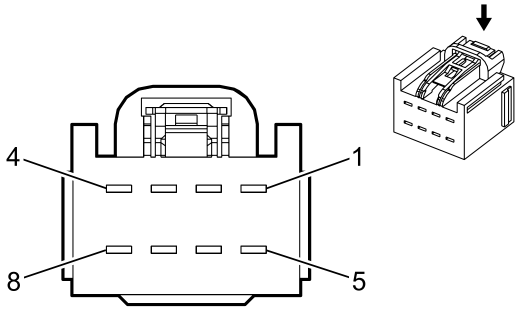
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S64D Seat Adjuster Switch - Driver X2 (without A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	1.5	L-BU	611	Driver Power Seat Lumbar Motor Forward Control	I	-
3-5	-	-	-	Not Occupied	-	-
6	1.5	VT	610	Driver Power Seat Lumbar Motor Rearward Control	I	-
7-8	-	-	-	Not Occupied	-	-

S64D Seat Adjuster Switch - Driver X2 (A45)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-3243-40

Service Connector: 13581036

Description: 8–Way F 2.8 Series (L-GY)

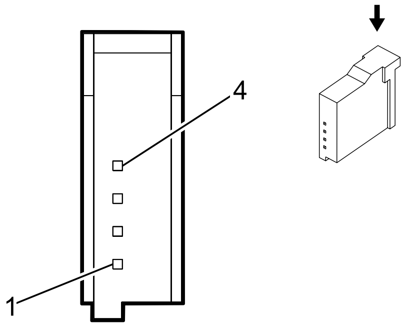
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S64D Seat Adjuster Switch - Driver X2 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1066	Driver Seat Lumbar Up Switch Signal	I	-
2	0.5	YE	1065	Driver Seat Lumbar Forward Switch Signal	I	-
3-4	-	-	-	Not Occupied	-	-
5	0.5	YE/BK	1067	Driver Seat Lumbar Down Switch Signal	I	-
6	0.5	L-BU/VT	1064	Driver Seat Lumbar Rearward Switch Signal	I	-
7-8	-	-	-	Not Occupied	-	-

S64D Seat Adjuster Switch - Driver (ULT)



Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7283-6160

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 090 Series (NA)

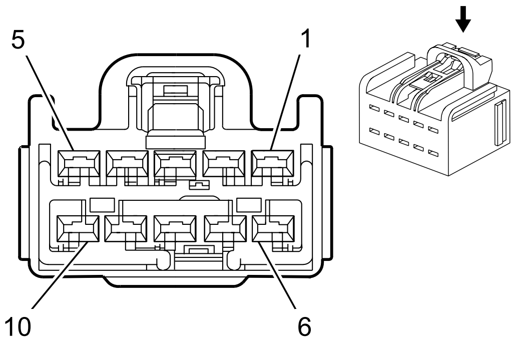
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S64D Seat Adjuster Switch - Driver (ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	2240	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN	3758	Linear Interconnect Network Bus 13	I	-
4	0.5	BK	1150	Ground	I	-

S64P Seat Adjuster Switch - Passenger X1 (AG2)



Connector Part Information

Harness Type: Passenger Seat Cushion

OEM Connector: 7283-6457-40

Service Connector: 19167919

Description: 10-Way F Kaizen YESC Series (L-GY)

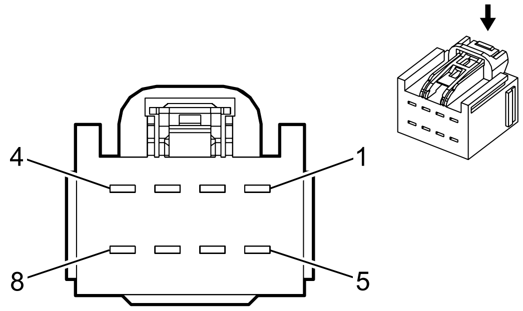
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S64P Seat Adjuster Switch - Passenger X1 (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/L-BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	-
2	1.5	L-GN	76	Passenger Power Seat Recline Motor Forward	I	-
3	1.5	YE/WH	296	Passenger Power Seat Horizontal Motor Forward Control	I	-
4	1.5	L-GN/VT	297	Passenger Power Seat Front Vertical Motor Up Control	I	-
5	2.5	BK	1250	Ground	I	-
6	1.5	L-BU/WH	289	Passenger Power Seat Rear Vertical Motor Down Control	I	-
7	1.5	L-BU/BN	77	Passenger Power Seat Recline Motor Rearward	I	-
8	1.5	L-GN/WH	288	Passenger Power Seat Rear Vertical Motor Up Control	I	-
9	1.5	YE/L-BU	290	Passenger Power Seat Horizontal Motor Rearward Control	I	-
10	2.5	RD/BN	1440	Battery Positive Voltage	I	-

S64P Seat Adjuster Switch - Passenger X2 (AG2)



Connector Part Information

Harness Type: Passenger Seat Cushion

OEM Connector: 7283-3243-40

Service Connector: 13581036

Description: 8–Way F 2.8 Series (L-GY)

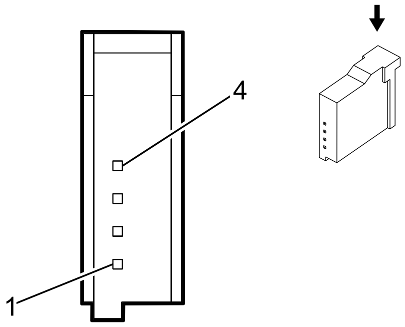
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S64P Seat Adjuster Switch - Passenger X2 (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	1.5	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	-
4	1.5	BN/YE	793	Passenger Power Seat Lumbar Motor Up Control	I	-
5	-	-	-	Not Occupied	-	-
6	1.5	L-BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	-
7	-	-	-	Not Occupied	-	-
8	1.5	L-BU/YE	792	Passenger Power Seat Lumbar Motor Down Control	I	-

S64P Seat Adjuster Switch - Passenger (ULT)



Connector Part Information

Harness Type: Passenger Seat Cushion

OEM Connector: 13579144

Service Connector: 13585622

Description: 4-Way F 0.64 Series (BK)

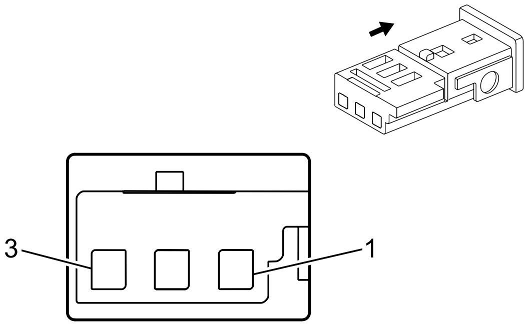
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S64P Seat Adjuster Switch - Passenger (ULT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	2240	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN/GY	3758	Linear Interconnect Network Bus 13	I	-
4	0.5	BK	1250	Ground	I	

S70E Steering Wheel Controls Switch - Radio Presets (X88 or Z88 with UK3)



Connector Part Information

Harness Type: Steering Wheel

OEM Connector: 13153088

Service Connector: Service by Harness — See Part Catalog

Description: 3-Way F 0.64 Micro Quadlock Series (BK)

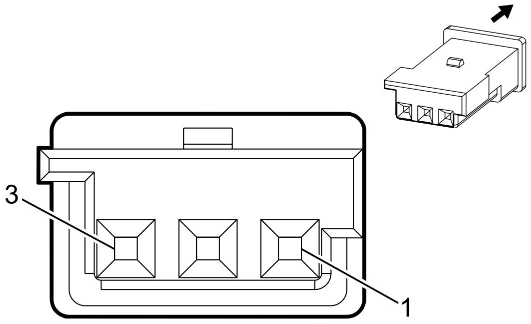
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S70E Steering Wheel Controls Switch - Radio Presets (X88 or Z88 with UK3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	4313	Radio Favorite Forward Signal	I	-
2	0.35	YE/BU	4312	Radio Favorite Back Signal	I	-
3	0.35	BK	1050	Ground	I	-

S70F Steering Wheel Controls Switch - Radio Volume (X88 or Z88 with UK3)



Connector Part Information

Harness Type: Steering Wheel

OEM Connector: 4-1718346-1

Service Connector: Service by Harness — See Part Catalog

Description: 3-Way F Micro Quadlock Series (PU)

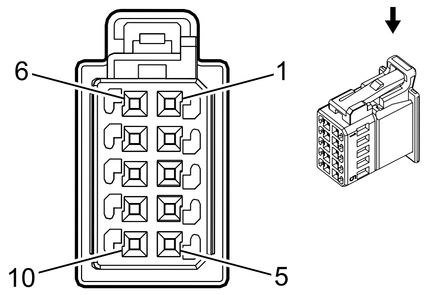
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S70F Steering Wheel Controls Switch - Radio Volume (X88 or Z88 with UK3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	4315	Radio Volume Up Signal	I	-
2	0.5	GN/BN	4314	Radio Volume Down Signal	I	-
3	0.5	BK	1550	Ground	I	-

S70L Steering Wheel Controls Switch - Left (X88 or Z88)



Connector Part Information

Harness Type: Steering Wheel

OEM Connector: 13582766

Service Connector: 19299776

Description: 10-Way F MQS Series BK

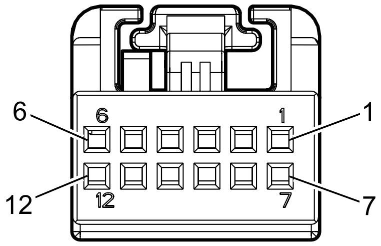
Terminal Part Information

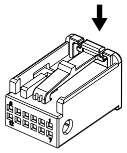
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S70L Steering Wheel Controls Switch - Left (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1050	Ground	I	-
2	0.5	PU	1050	Ground	I	UVD
3	0.35	GY/OG	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	I	K34/K59/KSG/UEU
4	0.35	BN/YE	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	K34
5	0.35	OG	5883	Heated Steering Wheel Switch Signal	I	UVD
6	0.35 0.35	YE YE	6817 6136	LED Backlight Dimming Control Supply Voltage	I	UK3 -UK3
7	0.35	WH	6816	Indicator Dimming Control	I	-
8	0.35	PK	5884	Heated Steering Wheel Switch LED Control	I	UVD
9	0.35	WH	1444	12 Volt Reference	I	K34
10	0.35	RD/YE	3040	Battery Positive Voltage	I	-

S70L Steering Wheel Controls Switch - Left (Z75)





Connector Part Information

Harness Type: Steering Wheel

OEM Connector: 13578796

Service Connector: Service by Harness — See Part Catalog

Description: 12-Way F (BK)

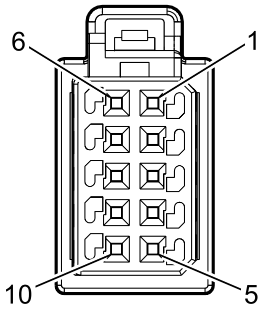
Terminal Part Information

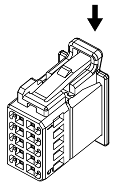
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S70L Steering Wheel Controls Switch - Left (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	9500	Voice Switch Control	I	-
2	0.35	OG/BK	6817	LED Backlight Dimming Control	I	-
3	0.35	BK/YE	9501	Phone Switch Control	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	VT	6816	Indicator Dimming Control	I	-
6	0.35	BK	1050	Ground	I	-
7	0.35	RD/GY	3040	Battery Positive Voltage	I	-
8	0.35	WH	1444	12 Volt Reference	I	K34
9	0.35	GY/GN	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	I	K34, KSG or UEU
10	0.35	BN/GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	K34
11	0.35	OG	5883	Heated Steering Wheel Switch Signal	I	-
12	0.35	PK	5884	Heated Steering Wheel Switch LED Control	I	-

S70R Steering Wheel Controls Switch - Right (X88 or Z88)





Connector Part Information

Harness Type: Steering Wheel

OEM Connector: 13582767

Service Connector: Service by Harness — See Part Catalog

Description: 10–Way F, 0.64 Micro-Quadlock Series (BK)

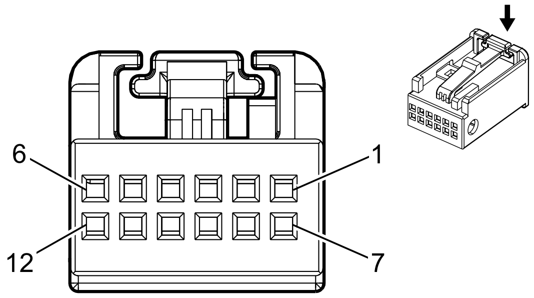
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S70R Steering Wheel Controls Switch - Right (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	-
2	0.35	WH	6816	Indicator Dimming Control	I	-
3	0.5	GN	3894	Linear Interconnect Network Bus 12	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	RD/YE	3040	Battery Positive Voltage	I	-
6	0.35	BK	1050	Ground	I	-
7	0.35	BU	4315	Radio Volume Up Signal	I	-
8	0.35	GN/BN	4314	Radio Volume Down Signal	I	-
9	0.35	WH/YE	4313	Radio Favorite Forward Signal	I	-
10	0.35	YE/BU	4312	Radio Favorite Back Signal	I	-

S70R Steering Wheel Controls Switch - Right (Z75)



Connector Part Information

Harness Type: Steering Wheel

OEM Connector: 13578796

Service Connector: Service by Harness — See Part Catalog

Description: 12–Way F, (WH)

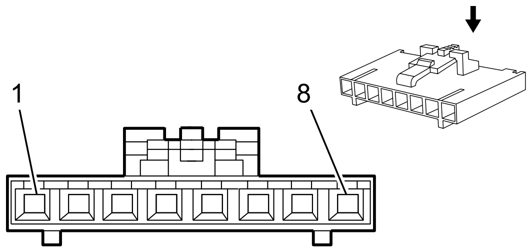
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S70R Steering Wheel Controls Switch - Right (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	9500	Voice Switch Control	I	-
2	0.35	OG/BK	6817	LED Backlight Dimming Control	I	-
3	0.35	BK/YE	9501	Phone Switch Control	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	RD/YE	3894	Local Interconnect Network Serial data Bus 12	I	-
6	0.35	BK	1050	Ground	I	-
7	0.35	RD/GY	3040	Battery Positive Voltage	I	-
8	0.35	VT	6816	Indicator Dimming Control	I	-
9–12	-	-	-	-	-	-

S72 Sunroof Switch (CF5)



Connector Part Information

Harness Type: Overhead Console

OEM Connector: 12103492

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 SL Series (BK)

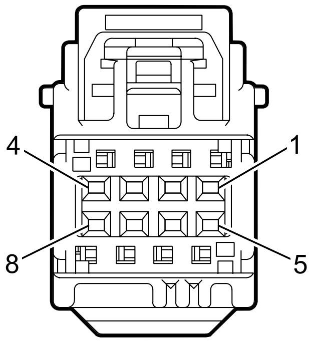
Terminal Part Information

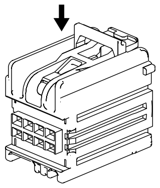
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S72 Sunroof Switch (CF5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/D-BU	2074	Sunroof Switch Express Signal	I	-
2	0.35	YE/VT	144	Sunroof Switch Open Vent Signal	I	-
3	0.35	YE	6817	LED Backlight Dimming Control	I	-
4	0.35	D-BU/WH	110	Sunroof Switch Close Signal	I	-
5	-	-	-	Not Occupied	-	-
6	0.35	L-GN/WH	100	Sunroof Switch Open Signal	I	-
7	0.35	BK	1050	Ground	I	-
8	0.35	GY/VT	2075	Sunroof Switch Close Vent Signal	I	-

S76 Trailer Brake Control Switch (JL1)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13518475

Service Connector: 13576542

Description: 8-Way F YESC Kaizen Series (BK)

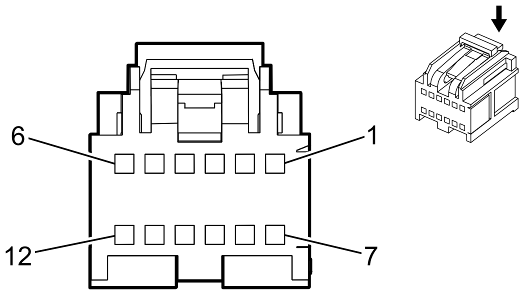
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S76 Trailer Brake Control Switch (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.5	D-BU/RD	7632	Integrated Trailer Brake Controller Switch 5 Volt Reference	I	-
4	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	I	-
5	0.5	BN	7634	Integrated Trailer Brake Contoller Redundant Manual Apply Signal	I	-
6	0.5	L-GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	I	-
7	0.35	YE	6817	LED Backlight Dimming Control	I	-
8	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	I	-

S77 Transfer Case Shift Control Switch (NP0 or NQH)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13782626

Service Connector: 19329259

Description: 12-Way F 0.64 OCS Series (GY)

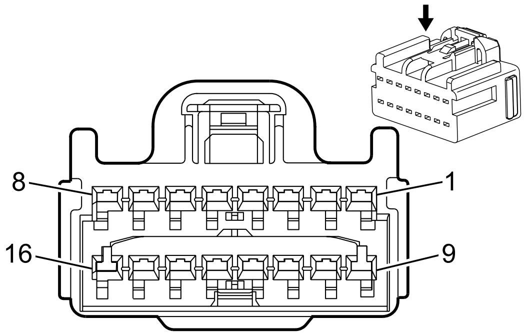
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13587581	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S77 Transfer Case Shift Control Switch (NP0 or NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	VT/BN	300	Run Ignition 3 Voltage	I	-
3	0.35	BN	1560	Neutral Indicator Control	I	-
4	0.35	WH	6816	Indicator Dimming Control	I	-
5	0.35	YE	6817	LED Backlight Dimming Control	I	-
6	0.75	BK	1050	Ground	I	-
7	0.35	GY/L-GN	1561	AWD Indicator Control	I	-
8	0.35	L-GN/BK	1563	2 HI Indicator Control	I	-
9	0.35	BN/BK	1566	4 HI Indicator Control	I	-
10	0.35	VT/WH	1565	4 LO Indicator Control	I	NQH
11	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5 Volt Reference	I	-
12	0.35	D-BU/YE	1693	Four Wheel Drive Switch Signal	I	-

S78 Turn Signal Multifunction Switch X1



Connector Part Information

Harness Type: Steering Column

OEM Connector: 7283-6453-60

Service Connector: 89047090

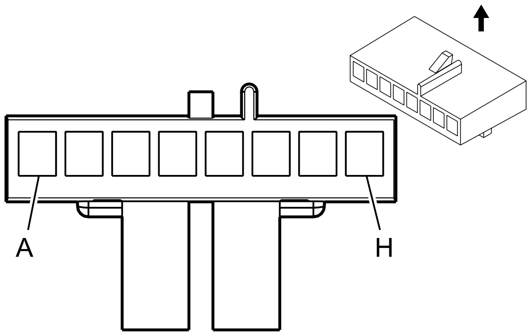
Description: 16-Way F Kaizen YESC Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S78 Turn Signal Multifunction Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-3	-	-	-	Not Occupied	-	-
4	0.5	GY	1715	Windshield Wiper Switch High Signal	I	-
5	-	-	-	Not Occupied	-	-
6	0.5	WH/BK	94	Windshield Washer Switch Signal	I	-
7	0.5	BK/GY	6009	Low Reference	I	-
8	0.5	YE/BU	1714	Windshield Wiper Switch Low Signal	I	-
9	-	-	-	Not Occupied	-	-
10	0.5	YE/BN	307	Headlamp Switch Flash To Pass Signal	I	-
11-12	-	-	-	Not Occupied	-	-
13	0.5	BK/WH	1851	Signal Ground	I	-
14	0.5	WH	524	Headlamp Dimmer Switch High Beam Signal	I	-
15-16	-	-	-	Not Occupied	-	-



Connector Part Information

Harness Type: Steering Column

OEM Connector: 15466859

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 150 Metri Pack Series (L-GY)

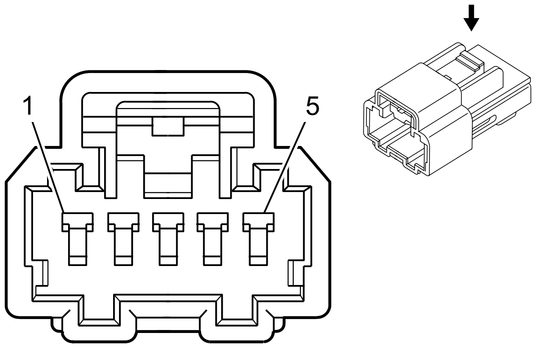
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S78 Turn Signal Multifunction Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A-B	-	-	-	Not Occupied	-	-
C	0.5	BK/WH	1851	Ground	I	-
D	0.5	VT/BU	664	Hazard Switch Right Turn Signal	I	-
E	0.5	WH/GN	663	Hazard Switch Left Turn Signal	I	-
F	0.5	BK/WH	1851	Ground	I	-
G	0.5	GN/WH	111	Hazard Switch Signal	I	-
H	-	-	-	Not Occupied	-	-

S78 Turn Signal Multifunction Switch X3



Connector Part Information

Harness Type: Steering Column

OEM Connector: HCMWSB-05-K

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M, HCM-W Series (BK)

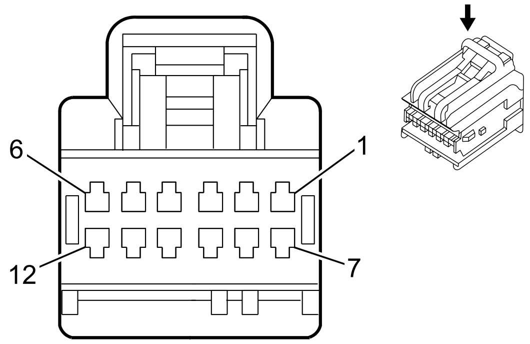
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

S78 Turn Signal Multifunction Switch X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/D-BU	391	Rear Window Wiper Switch Signal	I	-
2	0.5	BK/WH	1851	Ground	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	GY/YE	7595	Auto Wiper On Signal	I	-
5	-	-	-	Not Occupied	-	-

S79D Window Switch - Driver



Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 13551678

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 0.64 Series (BK)

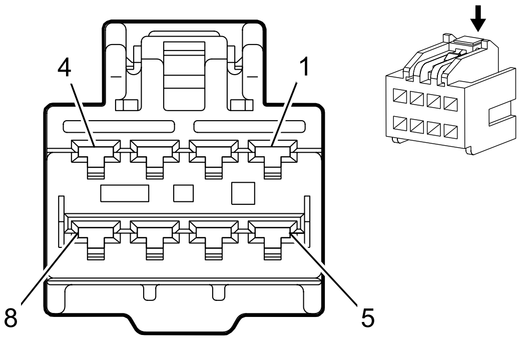
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S79D Window Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1150	Ground	I	-
2	0.35	L-GN/VT	7628	Power Window Motor Left Front Express Control	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	RD/VT	1940	Battery Positive Voltage	I	-
5	0.5	L-GN/YE	6134	Linear Interconnect Network Bus 3	I	-
6	0.35	L-GN/WH	1300	Power Window Master Switch Left Front Up Signal	I	-
7	0.35	WH/VT	3270	Driver Door Lock Motor Status	I	-
8	0.35	D-BU/VT	1124	Door Lock Key Switch Unlock Signal	I	-
9	-	-	-	Not Occupied	-	-
10	0.35	YE/BN	3265	Child Security Lock Switch Signal	I	-
11	0.35	WH	6816	Indicator Dimming Control	I	-
12	0.35	GY	5697	Child Lockout Indicator	I	-

S79LR Window Switch - Left Rear



Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 15491286

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 2.8 Series (BK)

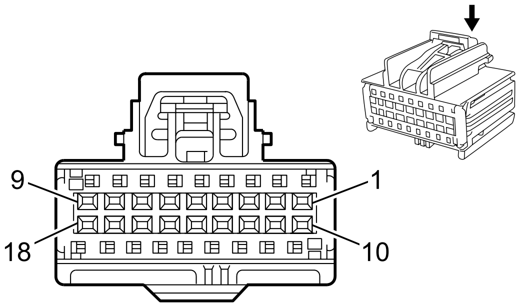
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S79LR Window Switch - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/GY	6135	Linear Interconnect Network Bus 4	I	-
2	-	-	-	Not Occupied	-	-
3	0.35 0.5	BK BK	1150 1150	Ground Ground	I	-
4	-	-	-	Not Occupied	-	-
5	2.5	BK	1150	Ground	I	-
6	2.5	D-BU/VT	668	Power Window Motor Left Rear Up Control	I	-
7	2.5	YE/D-BU	669	Power Window Motor Left Rear Down Control	I	-
8	2.5	RD/D-BU	1842	Battery Positive Voltage	I	-

S79P Window Switch - Passenger (A45)



Connector Part Information

Harness Type: Passenger Door Trim

OEM Connector: 13548562

Service Connector: Service by Harness - See Part Catalog

Description: 18-Way F 0.64 Kaizen Series (BK)

Terminal Part Information

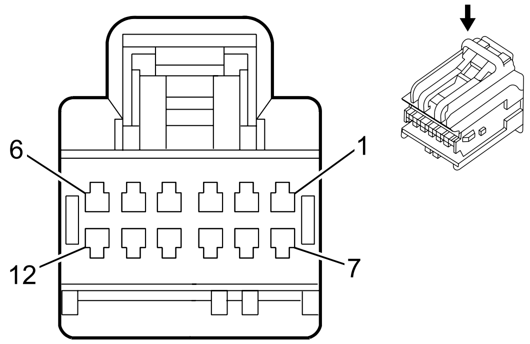
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S79P Window Switch - Passenger (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/WH	3413	Co-Driver Mirror Motor Fold Out Control	I	DL3 or DR4
2	0.35	YE/VT	3397	Co-Driver Mirror Motor Up (+) Down (-) Control	I	-
3	0.35	WH	3398	Co-Driver Mirror Motor Common Control	I	-
4	0.35	YE/RD	3399	Co-Driver Mirror Position Sensor High Reference	I	-
5	0.35	D-BU/YE	3401	Co-Driver Mirror Position Sensor Up (+) Down (-) Signal	I	-
6	0.35	BK/L-GN	3400	Co-Driver Mirror Position Sensor Low Reference	I	-
7	0.5	D-BU/GY	3414	Co-Driver Mirror Motor Fold In Control	I	DL3 or DR4
8	0.35	L-GN/BK	3396	Co-Driver Mirror Motor Right (+) Left (-) Control	I	-
9	0.5	L-GN/WH	7530	Linear Interconnect Network Bus 8	I	-
10	-	-	-	Not Occupied	-	-
11	0.35	VT/WH	3403	Co-Driver Mirror Position Sensor Left (-) Right (+) Signal	I	-
12	-	-	-	Not Occupied	-	-
13	0.35	BK	1250	Ground	I	-
14	0.35	VT/GY	2765	Power Window Switch Right Front Express Signal	I	-
15	0.35	BN/YE	167	Power Window Master Switch Right Front Down Signal	I	-

16	0.5	RD/D-BU	840	Battery Positive Voltage	I	-
17	0.35	YE	6817	LED Backlight Dimming Control	I	-
18	0.35	YE/BK	166	Power Window Master Switch Right Front Up Signal	I	-

S79P Window Switch - Passenger (without A45)



Connector Part Information

Harness Type: Passenger Door Trim

OEM Connector: 13551678

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 0.64 Kaizen Series (BK)

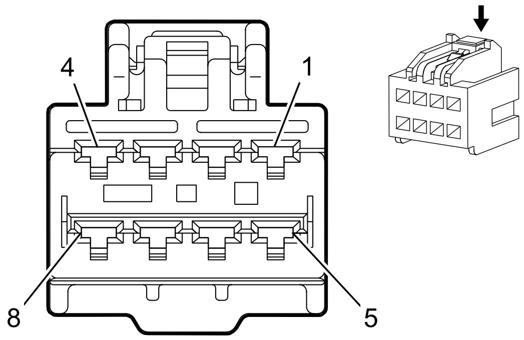
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S79P Window Switch - Passenger (without A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1250	Ground	I	-
2	0.35	VT/GY	2765	Power Window Switch Right Front Express Signal	I	-
3	0.35	BN/YE	167	Power Window Master Switch Right Front Down Signal	I	-
4	0.5	RD/D-BU	840	Battery Positive Voltage	I	-
5	0.35	YE	6817	LED Backlight Dimming Control	I	-
6	0.35	YE/BK	166	Power Window Master Switch Right Front Up Signal	I	-
7-12	-	-	-	Not Occupied	-	-

S79RR Window Switch - Right Rear



Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 15491286

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 2.8 Series (BK)

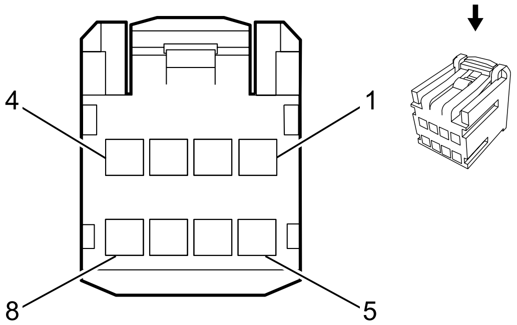
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S79RR Window Switch - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/GY	6135	Linear Interconnect Network Bus 4	I	-
2-4	-	-	-	Not Occupied	-	-
5	2.5	BK	1250	Ground	I	-
6	2.5	D-BU/GY	670	Power Window Motor Right Rear Up Control	I	-
7	2.5	L-GN/BK	671	Power Window Motor Right Rear Down Control	I	-
8	2.5	RD/WH	1340	Battery Positive Voltage	I	-

S91 Park Brake Control Switch (J71)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13609516

Service Connector: 13576541

Description: 8-Way F 1.2 HCM Series (BK)

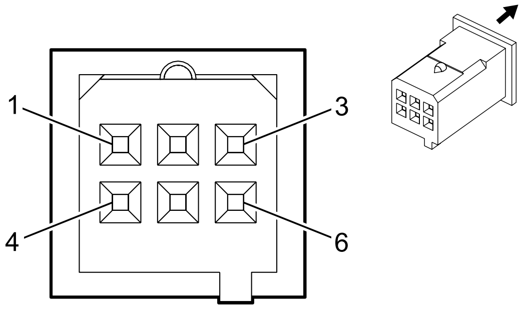
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S91 Park Brake Control Switch (J71)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	1492	Park Brake Switch Supply Voltage	I	-
2	0.35	D-BU/VT	1134	Park Brake Switch Signal	I	-
3	0.35	YE/RD	7683	Park Brake Release Switch Voltage Reference	I	-
4	0.35	BN	6107	Park Brake Apply Switch Signal	I	-
5	0.35	D-BU/BK	6108	Park Brake Release Switch Signal	I	-
6	0.35	YE	6817	LED Backlight Dimming Control	I	-
7	0.35	GY/RD	7684	Park Brake Apply Switch Voltage Reference	I	-
8	0.35	BK/WH	1851	Signal Ground	I	-

S135 Rollover Protection Disable Switch (9CI)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13548426

Service Connector: 13225892

Description: 6-Way F 0.64 Micro Quadlock Series (NA)

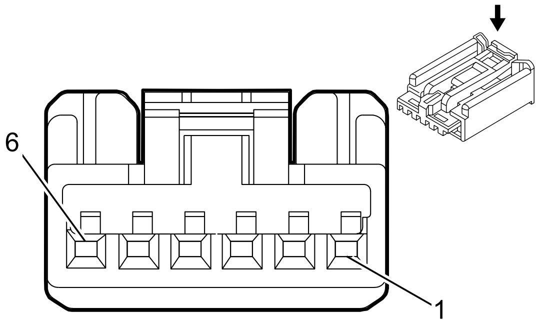
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S135 Rollover Protection Disable Switch (9CI)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/OG	371	Passenger IP Module Disable Switch Signal	I	-
2	0.35	D-BU/OG	7328	Passenger IP Module Disable Switch Return	I	-
3-6	-	-	-	Not Occupied	-	-

S140 Media Disc Eject Switch (Z75)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13595476

Service Connector: 19167753

Description: 6-Way F 0.64 Kaizen Series (BK)

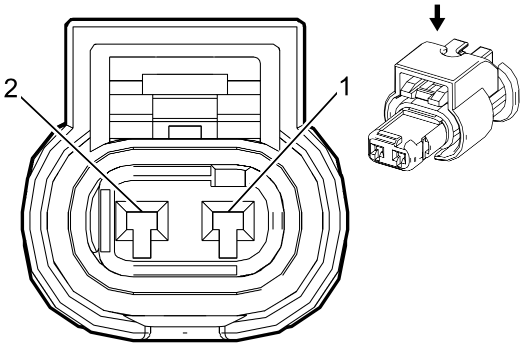
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S140 Media Disc Eject Switch (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/L-GN	1540	Battery Positive Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	WH	6816	Indicator Dimming Control	I	-
4	0.35	GY	4016	Remote Media Eject Signal	I	-
5	0.5	YE	6817	LED Backlight Dimming Control	I	-
6	0.35	BK	2550	Ground	I	-

S141 Liftgate Window Unlatch Switch



Connector Part Information

Harness Type: Liftgate

OEM Connector: 13761652

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK with BK Inner Connector)

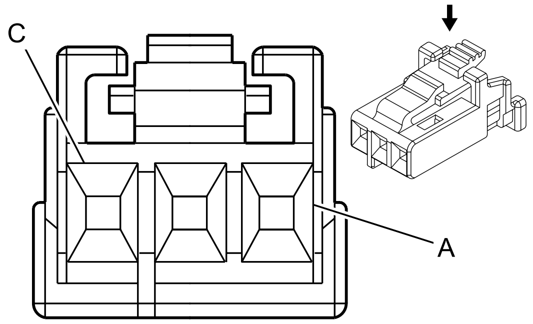
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S141 Liftgate Window Unlatch Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1450	Ground	I	-
2	0.35	GY/L-GN	6190	Lift Glass/Trunk Exterior Release Signal	I	-

S143L Folding Seat Control Switch - 2nd Row Left (ATN or ATT)



Connector Part Information

Harness Type: Body

OEM Connector: 15417063

Service Connector: 88987857

Description: 3-Way F 0.64 Micro Pack Series (BK)

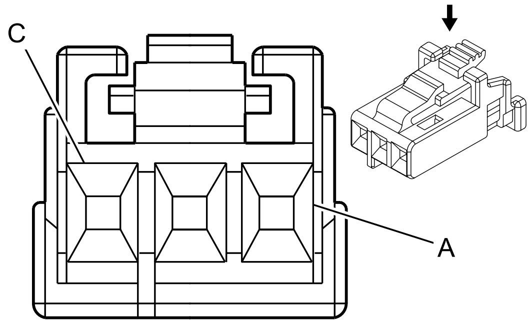
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S143L Folding Seat Control Switch - 2nd Row Left (ATN or ATT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-GN	6808	Left Rear Seat Fold Tumble Control	I	-
B	-	-	-	Not Occupied	-	-
C	0.5	YE/BK	5813	Park Enable Supply Voltage	I	-

S143R Folding Seat Control Switch - 2nd Row Right (ATN or ATT)



Connector Part Information

Harness Type: Body Extension

OEM Connector: 15417063

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Micro Pack Series (BK)

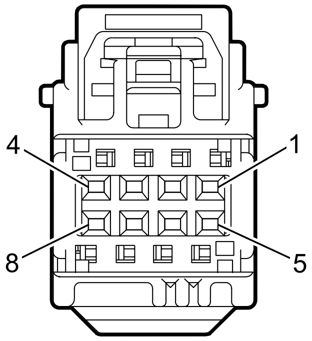
Terminal Part Information

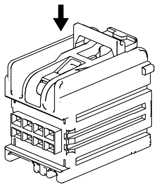
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S143R Folding Seat Control Switch - 2nd Row Right (ATN or ATT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN/WH	6809	Right Rear Seat Fold Tumble Control	I	-
B	-	-	-	Not Occupied	-	-
C	0.5	YE/BK	5813	Park Enable Supply Voltage	I	-

S144A Folding Seat Control Switch - Rear Compartment 2nd Row (ATN or ATT)





Connector Part Information

Harness Type: Body

OEM Connector: 13518475

Service Connector: 13576542

Description: 8-Way F YESC Kaizen Series (BK)

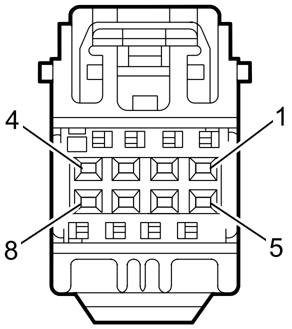
Terminal Part Information

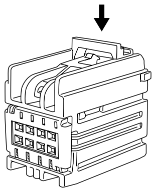
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S144A Folding Seat Control Switch - Rear Compartment 2nd Row (ATN or ATT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	YE/BK	5813	Park Enable Supply Voltage	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	L-GN	6808	Left Rear Seat Fold Tumble Control	I	-
5	0.35	BN/WH	6809	Right Rear Seat Fold Tumble Control	I	-
6-8	-	-	-	Not Occupied	-	-

S144B Folding Seat Control Switch - Rear Compartment 3rd Row (AS8)





Connector Part Information

Harness Type: Body

OEM Connector: 13551679

Service Connector: 19115653

Description: 8-Way F YESC Kaizen Series (L-GY)

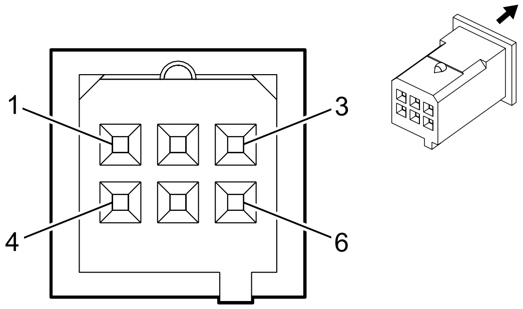
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S144B Folding Seat Control Switch - Rear Compartment 3rd Row (AS8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BK	5813	Park Enable Supply Voltage	I	-
2	0.5	L-GN	4224	LH Third Row Seat Recline Rearward Signal	I	-
3	0.5	L-GN/BK	4223	LH Third Row Seat Recline Forward Signal	I	-
4	0.5	YE	4220	RH Third Row Seat Recline Rearward Signal	I	-
5	0.5	YE/BK	4219	RH Third Row Seat Recline Forward Signal	I	-
6-8	-	-	-	Not Occupied	-	-

S145 Center Console Compartment Cooler Switch (DCK)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13548426

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Micro Quadlock Series (NA)

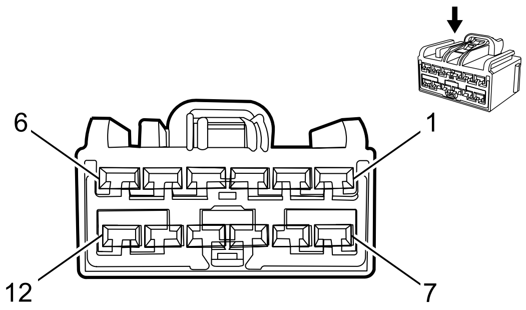
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

S145 Center Console Compartment Cooler Switch (DCK)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	6817	LED Backlight Dimming Control	I	-
2	0.35	BN	6532	Compartment Cooler Control Signal	I	-
3	0.5	BK	1050	Ground	I	-
4	-	-	-	Not Occupied	-	-
5	0.35	GY/BK	2546	Compartment Cooler Indicator Control	I	-
6	0.5	WH	6816	Indicator Dimming Control	I	-

T1 Accessory DC/AC Power Inverter Module (KI4)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10846814

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 2.8 Kaizen Series (L-GY)

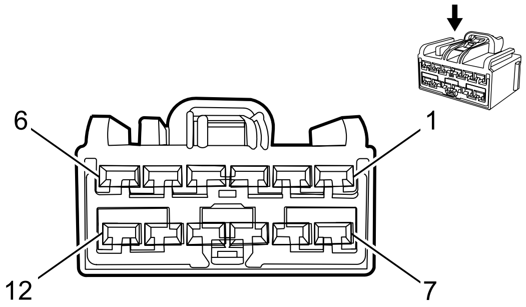
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

T1 Accessory DC/AC Power Inverter Module (KI4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	1.5	BK	5683	110 VAC Phase A	I	
4-5	-	-	-	Not Occupied	-	-
6	2.5	RD/GY	4140	Battery Positive Voltage	I	-
7	1.5	RD	5684	110 VAC Phase B	I	
8-9	-	-	-	Not Occupied	-	-
10	0.35	Bare	514	Drain Wire	I	-
11	2.5	BK	1050	Ground	I	-
12	0.35	D-BU/BN	6807	DC To AC Inverter Control	I	-

T1 Accessory DC/AC Power Inverter Module (KI5)



Connector Part Information

Harness Type: Power Receptacle Jumper

OEM Connector: 10846814

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 2.8 Kaizen Series (L-GY)

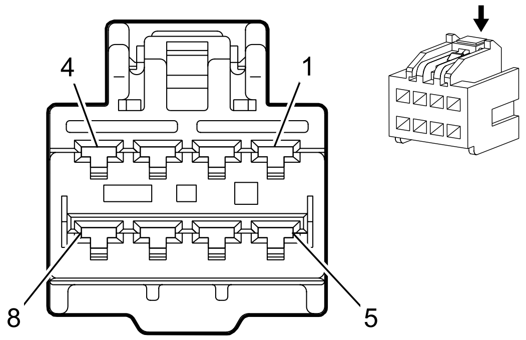
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

T1 Accessory DC/AC Power Inverter Module (KI5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	1.5	BK	5683	220 VAC Phase A	I	
4-5	-	-	-	Not Occupied	-	-
6	2.5	RD/GY	4140	Battery Positive Voltage	I	-
7	1.5	RD	5684	220 VAC Phase B	I	
8-9	-	-	-	Not Occupied	-	-
10	0.35	Bare	514	Drain Wire	I	-
11	2.5	BK	1050	Ground	I	-
12	0.35	D-BU/BN	6807	DC To AC Inverter Control	I	-

T3 Audio Amplifier X1 (UQA, UQH or UQS)



Connector Part Information

Harness Type: Body

OEM Connector: 15491286

Service Connector: 13580111

Description: 8-Way F 2.8 Series (BK)

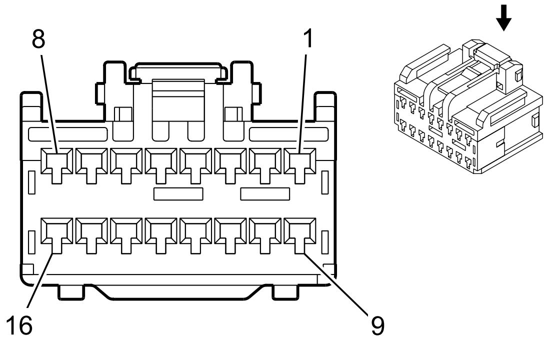
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T3 Audio Amplifier X1 (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	D-BU/GY	346	Left/Rear Subwoofer Speaker (+)	I	-
2	1	YE	200	Right Front Speaker (+) (1)	I	-
3	1	D-BU	201	Left Front Speaker (+) (1)	I	-
4	2.5	RD/YE	3740	Battery Positive Voltage	I	-
5	2.5	GY/BK	315	Right Subwoofer Speaker (-)	I	-
6	1	YE/BK	117	Right Front Speaker Signal (-) (1)	I	-
7	1	BN/D-BU	118	Left Front Speaker Signal (-) (1)	I	-
8	2.5	BK	2550	Ground	I	-

T3 Audio Amplifier X2 (UQA, UQH or UQS)



Connector Part Information

Harness Type: Body

OEM Connector: 15489823

Service Connector: 15134091

Description: 16-Way F 1.5 Series (BK)

Terminal Part Information

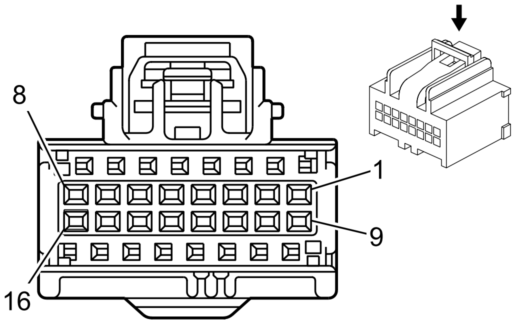
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575790	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T3 Audio Amplifier X2 (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/GY	1956	Left Front Tweeter Speaker (-)	I	-
2	0.75	D-BU/YE	1960	Front Center Speaker (-)	I	-
3	1	YE/BN	1859	Left Rear Midrange Speaker (+)	I	-
4	0.75	BN/L-GN	1852	Right Front Tweeter Speaker (+)	I	-
5	0.75	YE/D-BU	1856	Left Front Tweeter Speaker (+)	I	-
6	1	WH	46	Right Rear Speaker (+)	I	-
7	1	L-GN	199	Left Rear Speaker (+)	I	-
8	-	-	-	Not Occupied	-	-
9	0.75	YE/D-BU	1856	Left Front Tweeter Speaker (+)	I	-
10	0.75	YE/WH	1860	Front Center Speaker (+)	I	-
11	1	WH/BK	1959	Left Rear Midrange Speaker (-)	I	-
12	0.75	VT/BN	1952	Right Front Tweeter Speaker (-)	I	-
13	0.75	YE/GY	1956	Left Front Tweeter Speaker (-)	I	-
14	1	D-BU/BK	115	Right Rear Speaker Signal (-)	I	-
15	1	L-GN/BK	116	Left Rear Speaker Signal (-)	I	-

16	-	-	-	Not Occupied	-	-

T3 Audio Amplifier X3 (UQA, UQH or UQS)



Connector Part Information

Harness Type: Body

OEM Connector: 15491285

Service Connector: 15136073

Description: 16-Way F Kaizen 64 Series (BK)

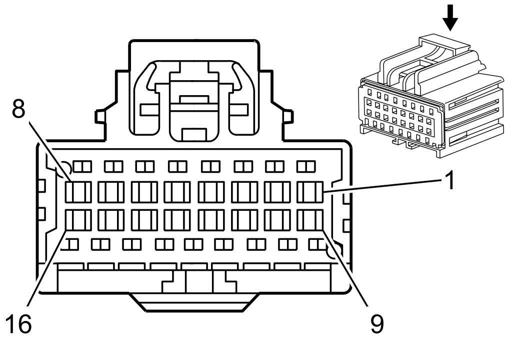
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579945	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575840	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T3 Audio Amplifier X3 (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	L-GN	5060	Low Speed GMLAN Serial Data	I	-
2	0.35	VT/D-BU	6091	Crankshaft Position Sensor Replicated Signal	II	-
3	-	-	-	Not Occupied	-	-
4	0.35	L-GN/BN	3005	Noise Reduction Microphone #1 Signal	II	-
5	0.35	D-BU/YE	3006	Noise Reduction Microphone #2 Signal	II	-
6	0.35	GY/D-BU	3007	Noise Reduction Microphone #3 Signal	II	-
7	-	-	-	Not Occupied	-	-
8	0.75	BN/L-GN	1852	Right Front Tweeter Speaker (+)	I	-
9-11	-	-	-	Not Occupied	-	-
12	0.35	L-GN/BK	3008	Noise Reduction Microphone #1 Return	II	-
13	0.35	D-BU/BK	3009	Noise Reduction Microphone #2 Return	II	-
14	0.35	GY/BN	3010	Noise Reduction Microphone #3 Return	II	-
15	-	-	-	Not Occupied	-	-
16	0.75	VT/BN	1952	Right Front Tweeter Speaker (-)	I	-

T3 Audio Amplifier X4 (UQA, UQH or UQS)



Connector Part Information

Harness Type: Body

OEM Connector: 15466054

Service Connector: 15136074

Description: 16-Way F 0.64 Kaizen Series (BN)

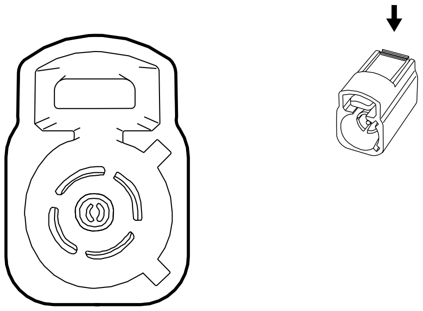
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T3 Audio Amplifier X4 (UQA, UQH or UQS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-2	-	-	-	Not Occupied	-	-
3	0.35	WH/GN	3997	MOST Serial Data (-)	I	-
4	0.35	GY/VT	3998	MOST Serial Data (+)	I	-
5	0.35	WH/GN	3997	MOST Serial Data (-)	I	-
6	0.35	GY/VT	3998	MOST Serial Data (+)	I	-
7-13	-	-	-	Not Occupied	-	-
14	0.35	WH/VT	3999	MOST Control	I	-
15-16	-	-	-	Not Occupied	-	-

T4G Cellular Phone, Navigation, and Digital Radio Antenna X1 (IO6 with UE1 without CV3)



Connector Part Information

Harness Type: Body COAX

OEM Connector: 13746736

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (PU)

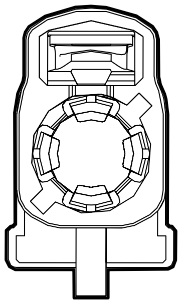
Terminal Part Information

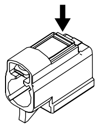
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T4G Cellular Phone, Navigation, and Digital Radio Antenna X1 (IO6 with UE1 without CV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna Cell/GPS combined Signal	I	—

T4G Cellular Phone, Navigation, and Digital Radio Antenna X3 (IO6 without UE1)





Connector Part Information

Harness Type: Body COAX

OEM Connector: 13746735

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T4G Cellular Phone, Navigation, and Digital Radio Antenna X3 (IO6 without UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna GPS Signal	I	—

T4G Cellular Phone, Navigation, and Digital Radio Antenna X3 (CV3 with UE1)

—

Connector Part Information

Harness Type: Body COAX

OEM Connector: 13585483

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 2-Way F COAX (BU)

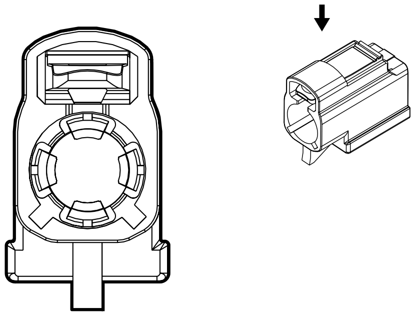
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T4G Cellular Phone, Navigation, and Digital Radio Antenna X3 (CV3 with UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	COAX	—	Coaxial Antenna Cell Signal	I	—
2	—	COAX	—	Coaxial Antenna GPS Signal	I	—

T4G Cellular Phone, Navigation, and Digital Radio Antenna X4 (U2M)



Connector Part Information

Harness Type: Body COAX

OEM Connector: 13746737

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (CU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T4G Cellular Phone, Navigation, and Digital Radio Antenna X4 (U2M)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna XM Signal	I	—

T4G Cellular Phone, Navigation, and Digital Radio Antenna X5 (VV4)

—

Connector Part Information

Harness Type: Body COAX

OEM Connector: 13585481

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 2-Way F COAX (VT)

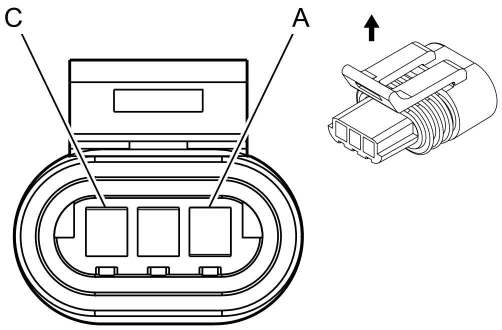
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T4G Cellular Phone, Navigation, and Digital Radio Antenna X5 (VV4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	COAX	—	Coaxial Antenna Cell/GPS Combined Signal	I	—
2	—	COAX	—	Coaxial Antenna Cell Phone Signal	I	—

T7L Headlamp Ballast - Left X1 (T4F)



Connector Part Information

Harness Type: Left Headlamp

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 3-Way F 150 GT Series, Sealed (BK)

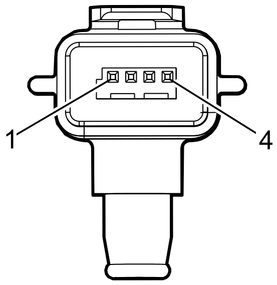
Terminal Part Information

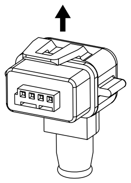
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T7L Headlamp Ballast - Left X1 (T4F)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	-	-	-	Not Occupied	-	-
B	0.50	BK	150	Ground	I	-
C	0.50	PU	712	Left Headlamp Low Beam Control	I	-

T7L Headlamp Ballast - Left X2 (T4F)





Connector Part Information

Harness Type: Left Headlamp High Voltage

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 4-Way F High Voltage, sealed (GN with BK case)

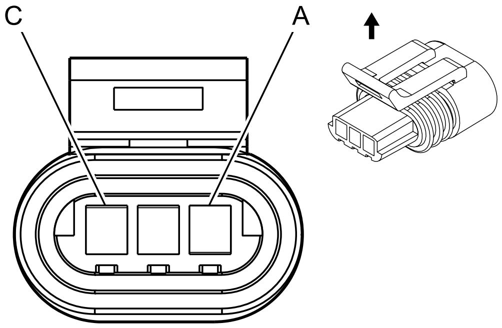
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T7L Headlamp Ballast - Left X2 (T4F)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0	—	—	High Voltage COAX	I	-
2	0	—	—	High Voltage COAX	I	-
3	-	-	-	Not Occupied	-	-
4	0	—	—	High Voltage COAX	I	-

T7R Headlamp Ballast - Right X1 (T4F)



Connector Part Information

Harness Type: Right Headlamp

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 3-Way F 150 GT Series, Sealed (BK)

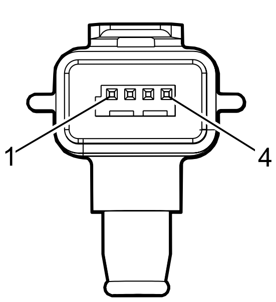
Terminal Part Information

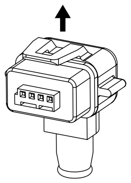
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T7R Headlamp Ballast - Right X1 (T4F)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	-	-	-	Not Occupied	-	-
B	0.50	BK	250	Ground	I	-
C	0.50	PU	312	Right Headlamp Low Beam Control	I	-

T7R Headlamp Ballast - Right X2 (T4F)





Connector Part Information

Harness Type: Right Headlamp High Voltage

OEM Connector: Not Available

Service Connector: Service by Component - See Part Catalog

Description: 4-Way F High Voltage, sealed (GN with BK case)

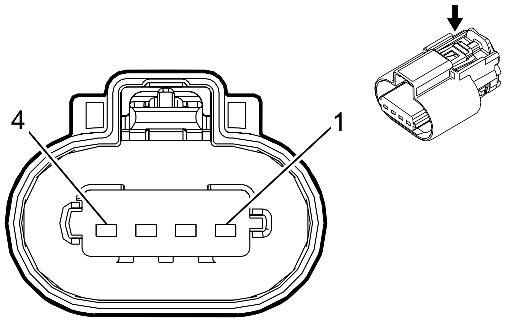
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T7R Headlamp Ballast - Right X2 (T4F)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0	—	—	High Voltage COAX	I	-
2	0	—	—	High Voltage COAX	I	-
3	-	-	-	Not Occupied	-	-
4	0	—	—	High Voltage COAX	I	-

T8A Ignition Coil 1



Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

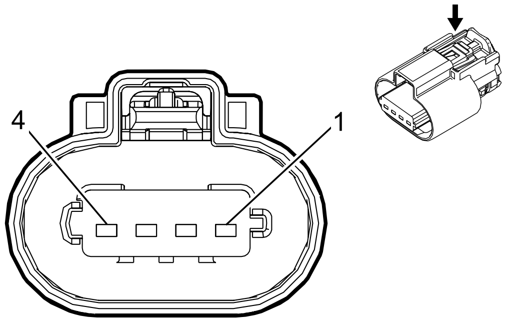
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8A Ignition Coil 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	-
3	0.5	D-BU/VT	2121	Ignition Control (1)	I	-
4	0.75	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)	I	-

T8B Ignition Coil 2



Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

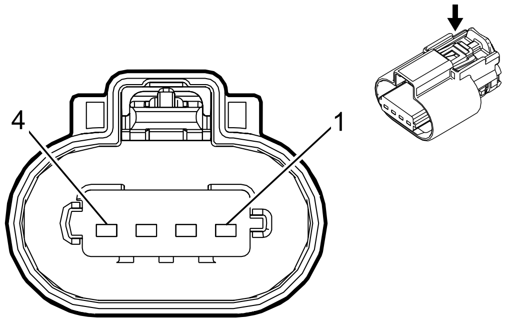
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8B Ignition Coil 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	-
3	0.5	D-BU/WH	2122	Ignition Control (2)	I	-
4	0.75	VT/D-BU	5292	Powertrain Main Relay Fused Supply (3)	I	-

T8C Ignition Coil 3



Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

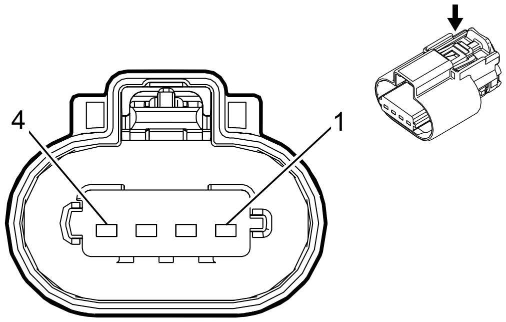
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8C Ignition Coil 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	-
3	0.5	L-GN/D-BU	2123	Ignition Control (3)	I	-
4	0.75	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)	I	-

T8D Ignition Coil 4



Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

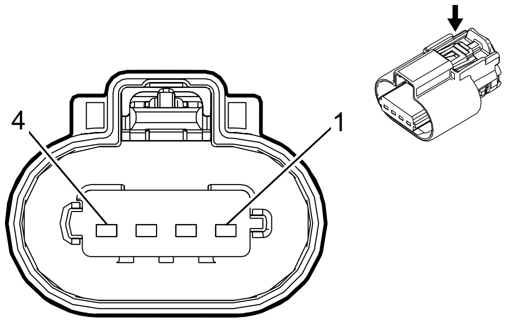
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8D Ignition Coil 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	-
3	0.5	YE/D-BU	2124	Ignition Control (4)	I	-
4	0.75	VT/D-BU	5292	Powertrain Main Relay Fused Supply (3)	I	-

T8E Ignition Coil 5



Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

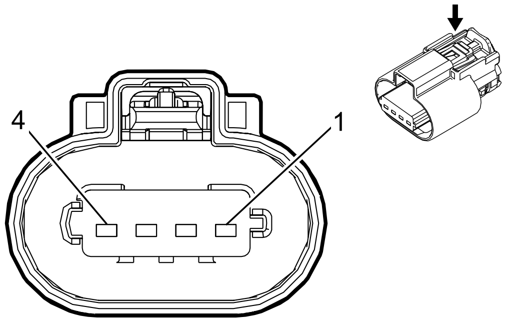
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8E Ignition Coil 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	-
3	0.5	D-BU/GY	2125	Ignition Control (5)	I	-
4	0.75	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)	I	-

T8F Ignition Coil 6



Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

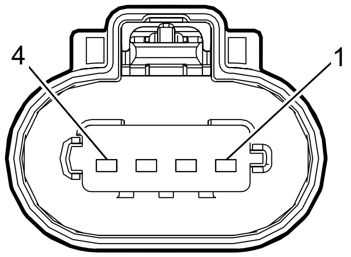
Terminal Part Information

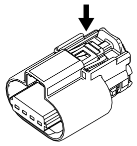
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8F Ignition Coil 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	-
3	0.5	BN/D-BU	2126	Ignition Control (6)	I	-
4	0.75	VT/D-BU	5292	Powertrain Main Relay Fused Supply (3)	I	-

T8G Ignition Coil 7





Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

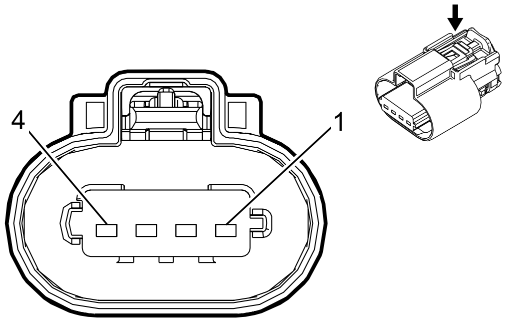
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8G Ignition Coil 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	-
3	0.5	L-GN/GY	2127	Ignition Control (7)	I	-
4	0.75	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)	I	-

T8H Ignition Coil 8



Connector Part Information

Harness Type: Engine

OEM Connector: 13863211

Service Connector: 19301722

Description: 4-Way F 150 MX Series, Sealed (BK)

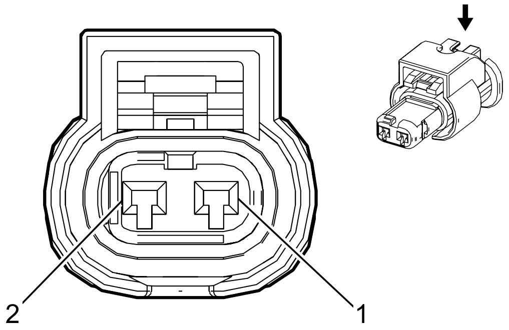
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T8H Ignition Coil 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	-
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	-
3	0.5	VT/WH	2128	Ignition Control (8)	I	-
4	0.75	VT/D-BU	5292	Powertrain Main Relay Fused Supply (3)	I	-

T10E Keyless Entry Antenna - Rear Compartment (ATH with BTM)



Connector Part Information

Harness Type: Body

OEM Connector: 13761653

Service Connector: 13585623

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK with NA Inner Connector)

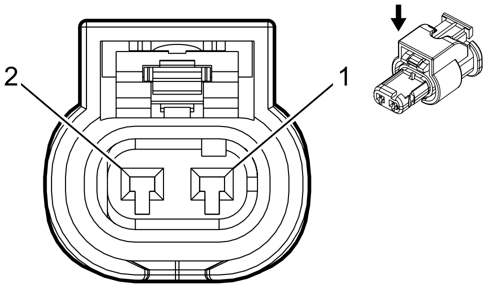
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T10E Keyless Entry Antenna - Rear Compartment (ATH with BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/L-GN	3556	Passive Start Interior Antenna 6 Signal Hi	I	-
2	0.35	L-GN	3557	Passive Start Interior Antenna 6 Signal Lo	I	-

T10G Keyless Entry Antenna - Rear Fascia (ATH with BTM)



Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13627836

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

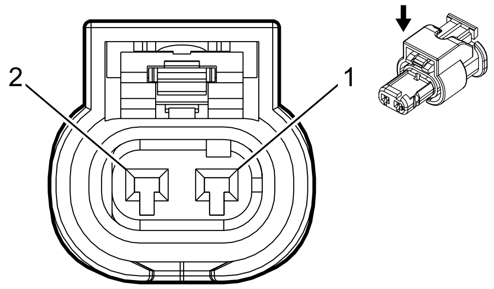
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

T10G Keyless Entry Antenna - Rear Fascia (ATH with BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	3568	Passive Entry Exterior Antenna 3 Signal Hi	I	-
2	0.5	L-GN/GY	3569	Passive Entry Exterior Antenna 3 Signal Lo	I	-

T10J Keyless Entry Antenna - Center Console Front (ATH with BTM)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13627836

Service Connector: 13587957

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

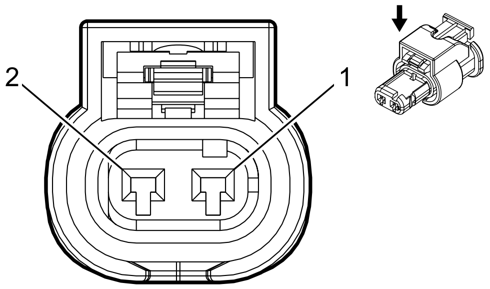
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

T10J Keyless Entry Antenna - Center Console Front (ATH with BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/BK	3552	Passive Start Interior Antenna 4 Signal Hi	I	-
2	0.35	WH	3553	Passive Start Interior Antenna 4 Signal Lo	I	-

T10K Keyless Entry Antenna - Center Console Rear (ATH with BTM)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13627836

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (BK)

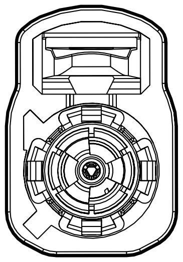
Terminal Part Information

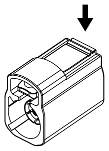
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

T10K Keyless Entry Antenna - Center Console Rear (ATH with BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU	3554	Passive Start Interior Antenna 5 Signal Hi	I	-
2	0.35	GY/BK	3555	Passive Start Interior Antenna 5 Signal Lo	I	-

T15 Navigation Antenna Signal Splitter X1 (IO6 with UE1)





Connector Part Information

Harness Type: Body COAX

OEM Connector: 13779898

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (GY)

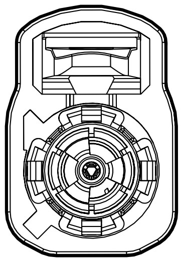
Terminal Part Information

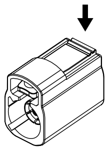
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T15 Navigation Antenna Signal Splitter X1 (IO6 with UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna Cell/GPS combined Signal	I	without CV3
	—	COAX	—	Coaxial Antenna GPS Signal		CV3

T15 Navigation Antenna Signal Splitter X2 (IO6 with UE1)





Connector Part Information

Harness Type: Body COAX

OEM Connector: 13746727

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (VT)

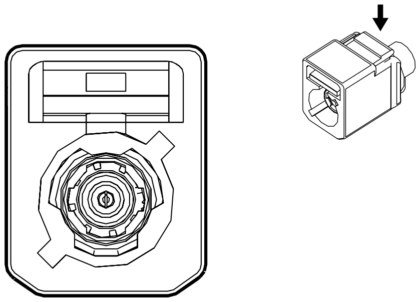
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T15 Navigation Antenna Signal Splitter X2 (IO6 with UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna Cell/GPS combined Signal	I	without CV3
	—	COAX	—	Coaxial Antenna GPS Signal		CV3

T15 Navigation Antenna Signal Splitter X3 (IO6 with UE1)



Connector Part Information

Harness Type: Body COAX

OEM Connector: 13822006

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (BU)

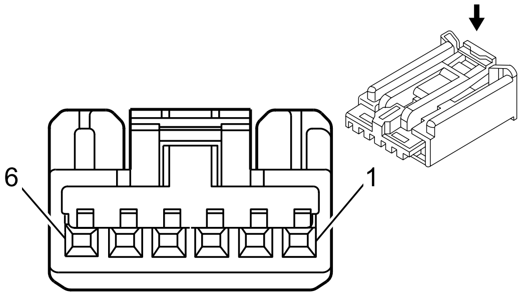
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T15 Navigation Antenna Signal Splitter X3 (IO6 with UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Coaxial Antenna GPS Signal	I	—

T22 Mobile Device Wireless Charger Module (K4C)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13595475

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Series (NA)

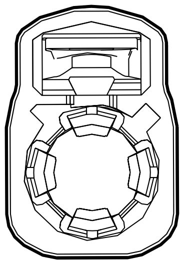
Terminal Part Information

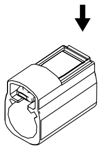
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

T22 Mobile Device Wireless Charger Module (K4C)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/YE	43	Accessory Voltage	I	-
2	0.75	BK	1050	Ground	I	-
3	0.35	L-GN	4512	Wireless Charging System Charge Indicator Control	I	-
4-6	-	-	-	Not Occupied	-	-

T23 Radio Antenna Amplifier X1





Connector Part Information

Harness Type: Body COAX

OEM Connector: 13746740

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (BK)

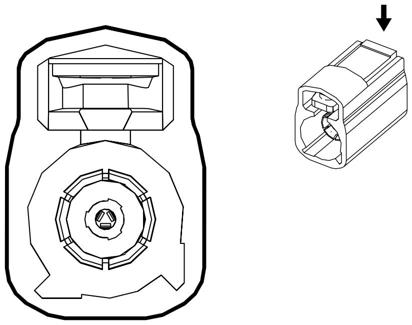
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T23 Radio Antenna Amplifier X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Antenna RF Signal	I	—

T23 Radio Antenna Amplifier X4



Connector Part Information

Harness Type: Body COAX

OEM Connector: 13847000

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 1-Way F COAX (OG)

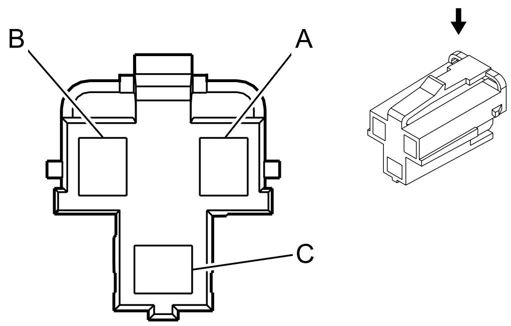
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

T23 Radio Antenna Amplifier X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	COAX	—	Antenna RF Signal	I	—

X80E Accessory Power Receptacle - Center Seat (AZ3)



Connector Part Information

Harness Type: Center Seat

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

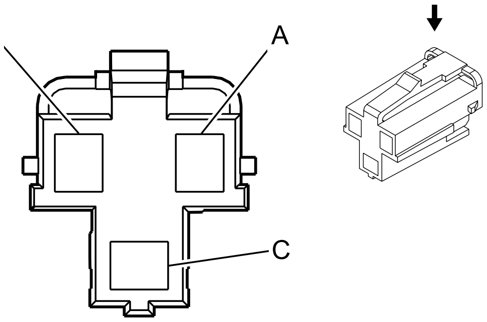
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

X80E Accessory Power Receptacle - Center Seat (AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5 1.5	VT/YE RD/BU	143 840	Accessory Voltage Accessory Voltage	I	AVF without AVF
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1250	Ground	I	-

X80D Accessory Power Receptacle - Center Console Compartment (D07)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

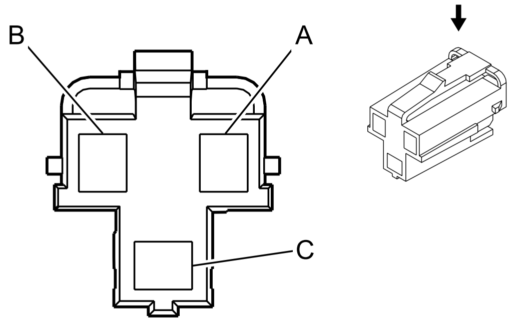
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

X80D Accessory Power Receptacle - Center Console Compartment (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5 1.5	VT/YE RD/BU	143 840	Accessory Voltage Accessory Voltage	I	AVF without AVF
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1050	Ground	I	-

X80D Accessory Power Receptacle - Center Console Compartment (AZ3)



Connector Part Information

Harness Type: Center Seat

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

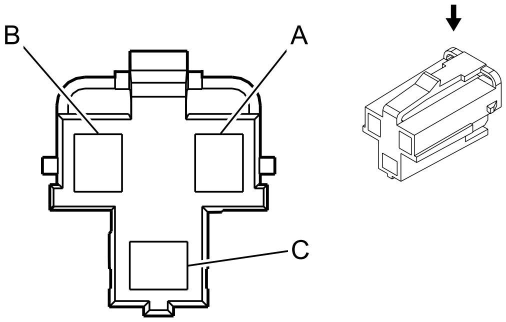
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

X80D Accessory Power Receptacle - Center Console Compartment (AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5 1.5	VT/YE RD/BU	243 840	Accessory Voltage Accessory Voltage	I	AVF without AVF
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1250	Ground	I	-

X80G Accessory Power Receptacle - Instrument Panel (D07)



Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 12176836
- Service Connector: 19257374
- Description: 3-Way F 280 Metri Pack Series (GY)

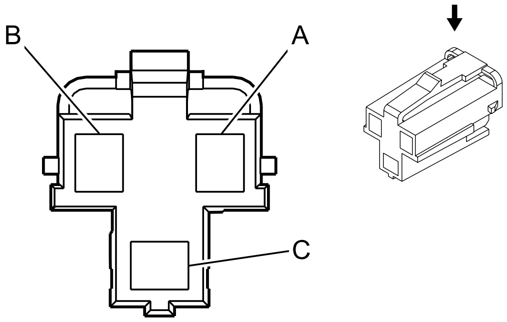
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

X80G Accessory Power Receptacle - Instrument Panel (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/WH	1040	Battery Positive Voltage	I	-
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1050	Ground	I	-

X80G Accessory Power Receptacle - Instrument Panel (AZ3)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

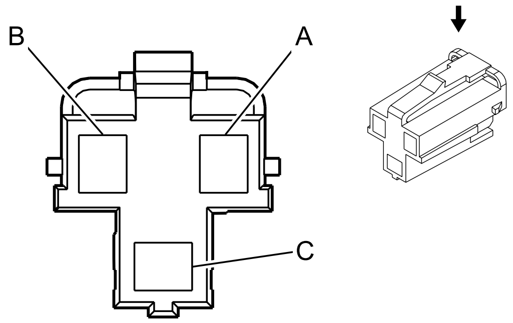
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

X80G Accessory Power Receptacle - Instrument Panel (AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/BN	4240	Battery Positive Voltage	I	-
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1050	Ground	I	-

X80L Accessory Power Receptacle – Instrument Panel (D07)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

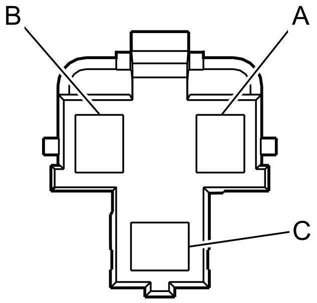
Terminal Part Information

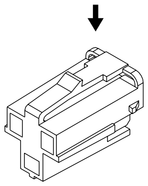
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Pending	J-35616-4A (PU)	J-38125-12A	12191475	1	4	G

X80L Accessory Power Receptacle – Instrument Panel (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5 1.5	VT/YE RD/BU	243 840	Accessory Voltage Accessory Voltage	I	AVF without AVF
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1050	Ground	I	-

X80RL Accessory Power Receptacle - Rear Compartment Left





Connector Part Information

Harness Type: Body

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

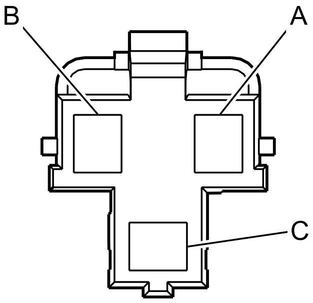
Terminal Part Information

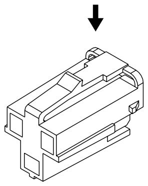
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available

X80RL Accessory Power Receptacle - Rear Compartment Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/D-BU	6040	Battery Positive Voltage	I	-
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1150	Ground	I	-

X80RR Accessory Power Receptacle - Rear Compartment Right





Connector Part Information

Harness Type: Body

OEM Connector: 12176836

Service Connector: 19257374

Description: 3-Way F 280 Metri Pack Series (GY)

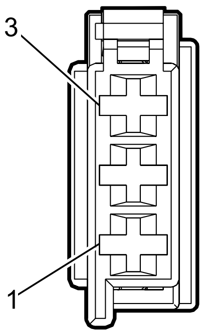
Terminal Part Information

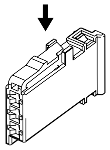
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available

X80RR Accessory Power Receptacle - Rear Compartment Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/D-BU	6040	Battery Positive Voltage	I	-
B	-	-	-	Not Occupied	-	-
C	1.5	BK	1450	Ground	I	-

X81 Accessory Power Receptacle - 110V AC X1 (KI4 with D07)





Connector Part Information

Harness Type: Floor Console

OEM Connector: 10865339

Service Connector: 93186706

Description: 3-Way F 1.6 Micro Timer Series (BK)

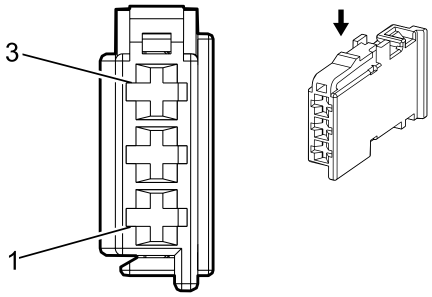
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

X81 Accessory Power Receptacle - 110V AC X1 (KI4 with D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BN	300	Run Ignition 3 Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.75	BK	5683	110 VAC Phase A	I	

X81 Accessory Power Receptacle - 110V AC X2 (KI4 with D07)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13648774

Service Connector: 13583924

Description: 3-Way F 1.6 Timer Series, Sealed (GY)

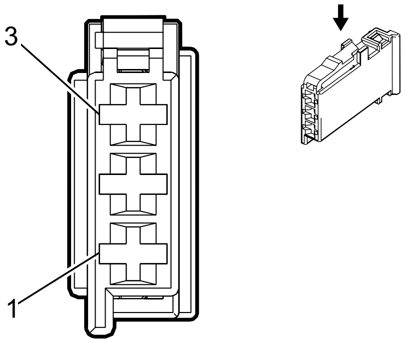
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575760	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1
II	13327144	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1

X81 Accessory Power Receptacle - 110V AC X2 (KI4 with D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU/BN	6807	DC To AC Inverter Control	I	-
2	-	-	-	Not Occupied	-	-
3	0.75	RD	5684	110 VAC Phase B	II	-

X81 Accessory Power Receptacle - 110V AC X1 (KI4 with AZ3)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10865339

Service Connector: 93186706

Description: 3-Way F 1.6 Micro Timer Series (BK)

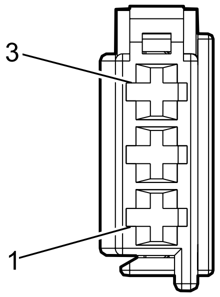
Terminal Part Information

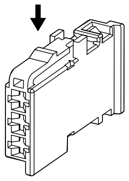
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327144	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1
II	13575551	J-35616-14 (GN)	J-38125-560	962943-5	16	Not Available	Not Available

X81 Accessory Power Receptacle - 110V AC X1 (KI4 with AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BN	300	Run Ignition 3 Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	BK	5683	110 VAC Phase A	II	-

X81 Accessory Power Receptacle - 110V AC X2 (KI4 with AZ3)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13648774

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 1.6 Timer Series, Sealed (GY)

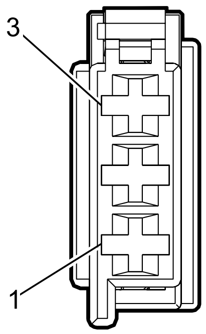
Terminal Part Information

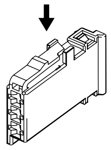
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

X81 Accessory Power Receptacle - 110V AC X2 (KI4 with AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU/BN	6807	DC To AC Inverter Control	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	RD	5684	110 VAC Phase B	I	-

X81B Accessory Power Receptacle - 220V AC X1 (KI5 with D07)





Connector Part Information

Harness Type: Floor Console

OEM Connector: 10865339

Service Connector: 93186706

Description: 3-Way F 1.6 Micro Timer Series (BK)

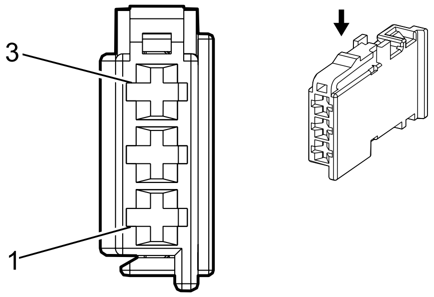
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327144	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1

X81B Accessory Power Receptacle - 220V AC X1 (KI5 with D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BN	300	Run Ignition 3 Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	0.75	BK	5683	220 VAC Phase A	I	-

X81B Accessory Power Receptacle - 220V AC X2 (KI5 with D07)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13648774

Service Connector: 13583924

Description: 3-Way F 1.6 Timer Series, Sealed (GY)

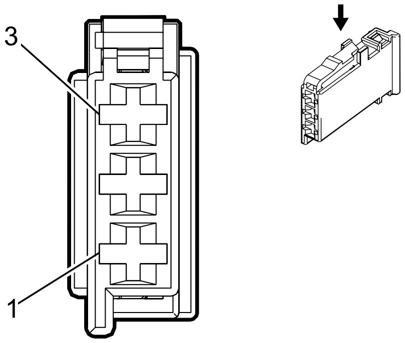
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575760	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1
II	13327144	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1

X81B Accessory Power Receptacle - 220V AC X2 (KI5 with D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU/BN	6807	DC To AC Inverter Control	I	-
2	-	-	-	Not Occupied	-	-
3	0.75	RD	5684	220 VAC Phase B	II	-

X81B Accessory Power Receptacle - 220V AC X1 (KI5 with AZ3)



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10865339

Service Connector: 93186706

Description: 3-Way F 1.6 Micro Timer Series (BK)

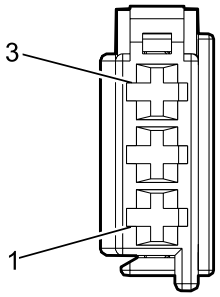
Terminal Part Information

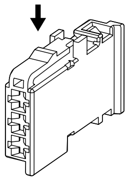
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327144	J-35616-14 (GN)	J-38125-560	964274-2	16	E	1
II	13575551	J-35616-14 (GN)	J-38125-560	962943-5	16	Not Available	Not Available

X81B Accessory Power Receptacle - 220V AC X1 (KI5 with AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BN	300	Run Ignition 3 Voltage	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	BK	5683	220 VAC Phase A	II	-

X81B Accessory Power Receptacle - 220V AC X2 (KI5 with AZ3)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13648774

Service Connector: 13583924

Description: 3-Way F 1.6 Timer Series, Sealed (GY)

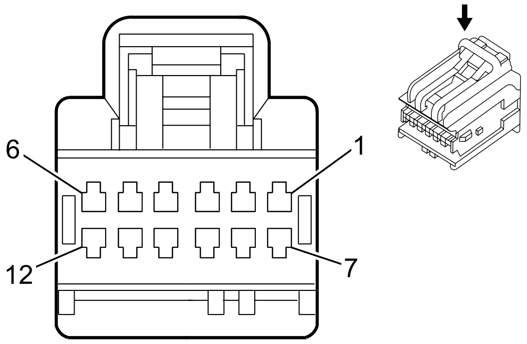
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

X81B Accessory Power Receptacle - 220V AC X2 (KI5 with AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-BU/BN	6807	DC To AC Inverter Control	I	-
2	-	-	-	Not Occupied	-	-
3	1.5	RD	5684	220 VAC Phase B	I	-

X82 Audio/Video Input Adapter X1 (U42 with D07)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13551678

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 0.64 Series (BK)

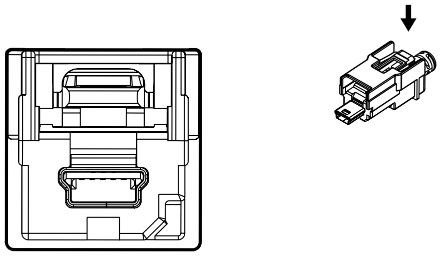
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

X82 Audio/Video Input Adapter X1 (U42 with D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	2550	Ground	I	-
2	-	-	-	Not Occupied	-	-
3	0.35	L-GN/WH	3355	Left Rear Seat Audio Headphone Signal	I	-
4	0.35	WH	2058	Right Auxiliary Audio Signal (1)	I	-
5	0.35	YE	2059	Left Auxiliary Audio Signal (1)	I	-
6	0.35	YE	2056	Auxiliary Video High Signal	I	-
7	0.75	RD/VT	340	Battery Positive Voltage	I	-
8	-	-	-	Not Occupied	-	-
9	0.35	BN/GY	3357	Right Rear Seat Audio Headphone Signal	I	-
10	0.35	D-BU/VT	3356	Rear Seat Audio Headphone Common Signal	I	-
11	0.35	BN	3374	Auxiliary Audio Common Signal (2)	I	-
12	0.5	Bare	2057	Auxiliary Video Low Signal	I	-

X82 Audio/Video Input Adapter X2 (U42 with D07)



Connector Part Information

Harness Type: Floor Console USB

OEM Connector: 13868727

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way M USB Type (BK)

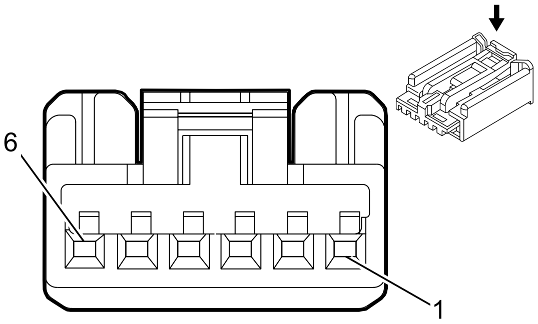
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X82 Audio/Video Input Adapter X2 (U42 with D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X83 Auxiliary Audio Input X1 (AZ3)



Connector Part Information

Harness Type: Center Seat

OEM Connector: 13595476

Service Connector: 19167753

Description: 6-Way F 0.64 Kaizen Series (BK)

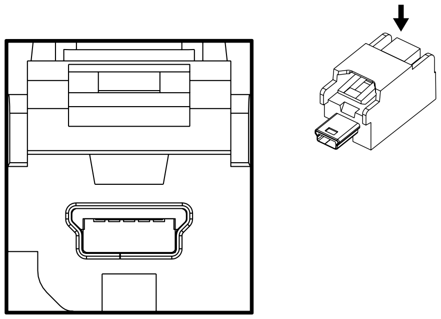
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13579944	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13579945	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X83 Auxiliary Audio Input X1 (AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	5839	Left Auxiliary Audio Signal (2)	I	-
2	0.35	L-GN	5841	Right Auxiliary Audio Signal (2)	I	-
3	0.35	VT	5843	Auxiliary Audio Common Signal	I	-
4	0.35	BK	2550	Ground	I	-
5	0.35	D-BU	2060	Auxiliary Detection Signal	I	-
6	0.75	RD/VT	340	Battery Positive Voltage	II	-

X83 Auxiliary Audio Input X2 (AZ3)



Connector Part Information

Harness Type: Seat USB

OEM Connector: 13581339

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way F USB Type (GY)

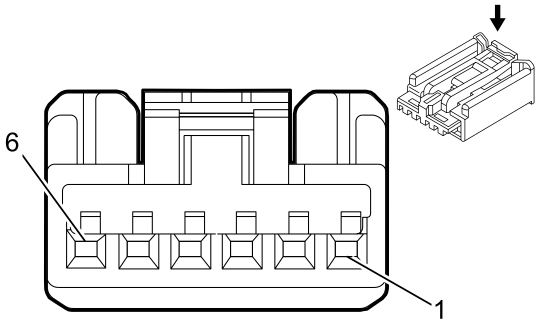
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X83 Auxiliary Audio Input X2 (AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X83 Auxiliary Audio Input X1 (D07)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13595476

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Kaizen Series (BK)

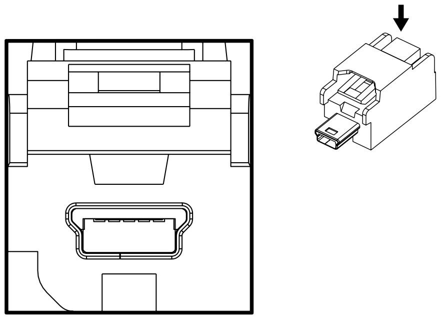
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

X83 Auxiliary Audio Input X1 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	5839	Left Auxiliary Audio Signal (2)	I	-
2	0.35	L-GN	5841	Right Auxiliary Audio Signal (2)	I	-
3	0.35	VT	5843	Auxiliary Audio Common Signal	I	-
4	0.35	BK	2550	Ground	I	-
5	0.35	D-BU	2060	Auxiliary Detection Signal	I	-
6	0.75	RD/VT	340	Battery Positive Voltage	I	-

X83 Auxiliary Audio Input X2 (D07)



Connector Part Information

Harness Type: Floor Console Jumper USB

OEM Connector: 13868840

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way F USB Type (GY)

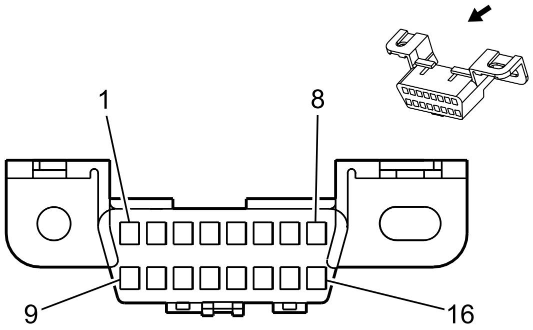
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X83 Auxiliary Audio Input X2 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X84 Data Link Connector



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12110250

Service Connector: 12110250

Description: 16-Way F 150 Metri Pack Series (BK)

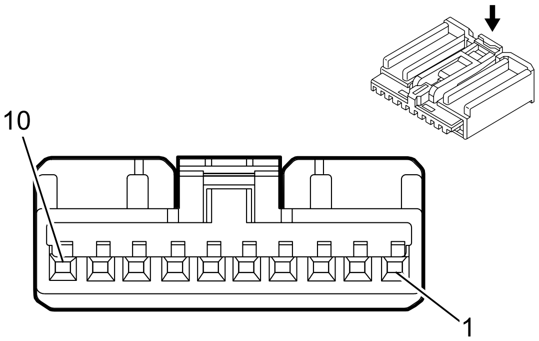
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327106	J-35616-14 (GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575725	J-35616-14 (GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
2	-	-	-	Not Occupied	-	-
3	0.5	D-BU/VT	3813	High Speed GMLAN Serial Data (+) (4)	I	-
4	1	BK	1050	Ground	II	-
5	0.75	BK/WH	1851	Signal Ground	II	-
6	0.5	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	I	-
7-10	-	-	-	Not Occupied	-	-
11	0.5	WH	3811	High Speed GMLAN Serial Data (-) (4)	I	-
12	0.5	D-BU/YE	6105	High Speed GMLAN Serial Data (+) (2)	I	-
13	0.5	WH	6106	High Speed GMLAN Serial Data (-) (2)	I	-
14	0.5	WH	2501	High Speed GMLAN Serial Data (-) (1)	I	-
15	-	-	-	Not Occupied	-	-
16	0.5	RD/WH	640	Battery Positive Voltage	I	-

X85 Steering Wheel Air Bag Coil X1



Connector Part Information

Harness Type: Steering Column

OEM Connector: AIT2PB-10-1AK

Service Connector: 13576634

Description: 10-Way F 0.64 Kaizen Series (BK)

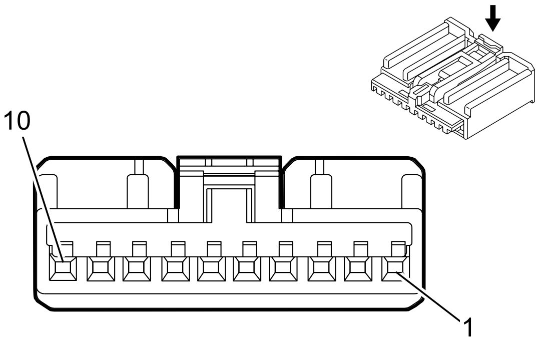
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X85 Steering Wheel Air Bag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/YE	3040	Battery Positive Voltage	I	-
2	0.5	D-GN	3894	Linear Interconnect Network Bus 12	I	-
3	-	-	-	Not Occupied	-	-
4	0.5	GY/GN	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	I	K34/K59/KSG/UEU
5	0.5	BN	6136	LED Backlight Dimming Control	I	-
6	0.5	WH/RD	1444	12 Volt Reference	I	K34
7	-	-	-	Not Occupied	-	-
8	0.5	BN/GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	K34
9	0.5	BK	1050	Ground	I	-
10	0.5	D-GN/WH	3287	Horn Switch Signal	I	-

X85 Steering Wheel Air Bag Coil X2 (X88 or Z88)



Connector Part Information

Harness Type: Steering Wheel

OEM Connector: AIT2PB-10-1AK

Service Connector: 13576634

Description: 10-Way F 0.64 Kaizen Series (BK)

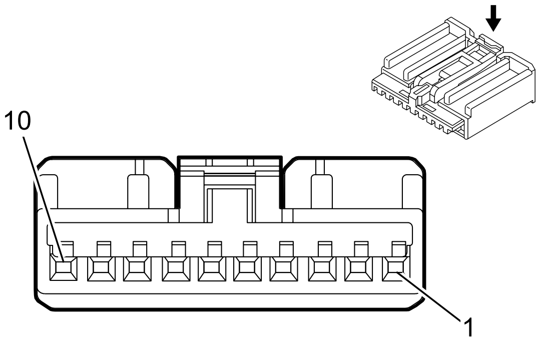
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X85 Steering Wheel Air Bag Coil X2 (X88 or Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD	3287	Horn Switch Signal	I	-
2	0.35	BK	1050	Ground	I	-
3	0.35	BN/YE	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	K34
4	-	-	-	Not Occupied	-	-
5	0.35	WH	1444	12 Volt Reference	I	K34
6	0.35	YE	6136	LED Backlight Dimming Control	I	without UK3
7	0.35	GY/RD	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	I	K34/K59/KSG/UEU
8	-	-	-	Not Occupied	-	-
9	0.35	D-GN	3894	Linear Interconnect Network Bus 12	I	-
10	0.35	RD/YE	3040	Battery Positive Voltage	I	-

X85 Steering Wheel Air Bag Coil X2 (Z75)



Connector Part Information

Harness Type: Steering Wheel

OEM Connector: AIT2PB-10-1AK

Service Connector: 13576634

Description: 10-Way F 0.64 Kaizen Series (BK)

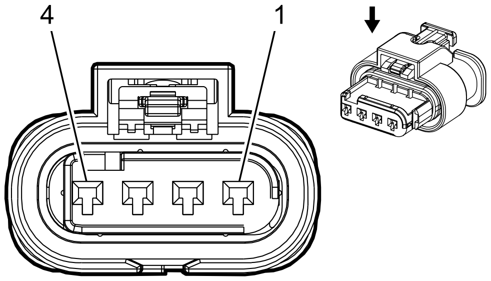
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X85 Steering Wheel Air Bag Coil X2 (Z75)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD	3287	Horn Switch Signal	I	-
2	0.35	BK	1050	Ground	I	-
3	0.35	BN/GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	K34
4	-	-	-	Not Occupied	-	-
5	0.35	WH	1444	12 Volt Reference	I	K34
6	-	-	-	Not Occupied	-	-
7	0.35	GY/GN	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	I	K34/K59/KSG/UEU
8	-	-	-	Not Occupied	-	-
9	0.35	RD/YE	3894	Linear Interconnect Network Bus 12	I	-
10	0.35	RD/GY	3040	Battery Positive Voltage	I	-

X85 Steering Wheel Air Bag Coil X3



Connector Part Information

Harness Type: Body

OEM Connector: 13854531

Service Connector: 13586137

Description: 4-Way F 1.2 Series, Sealed (YE)

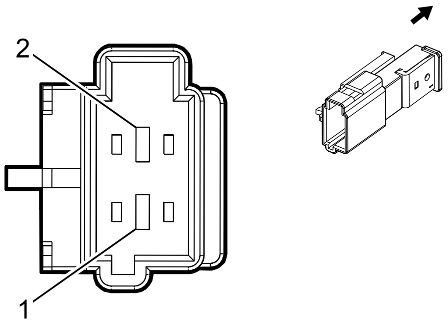
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	Not Available	Not Available	Not Available	Not Available	Not Available

X85 Steering Wheel Air Bag Coil X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	I	-
2	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	I	-
3	0.35	OG/L-GN	3023	Steering Wheel Module Stage 2 High Control	I	-
4	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	I	-

X85 Steering Wheel Air Bag Coil X4 (UVD)



Connector Part Information

Harness Type: Steering Wheel Air Bag Coil

OEM Connector: 19179872

Service Connector: 13574780

Description: 2–Way M 1.6 Timer Series (BK)

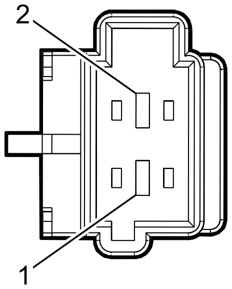
Terminal Part Information

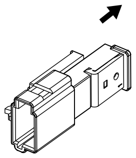
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X85 Steering Wheel Air Bag Coil X4 (UVD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	—
2	0.5	BK	1050	Ground	I	—

X85 Steering Wheel Air Bag Coil X5 (UVD)





Connector Part Information

Harness Type: Steering Wheel Air Bag Coil

OEM Connector: 19179872

Service Connector: 13574780

Description: 2–Way M 1.6 Timer Series (BK)

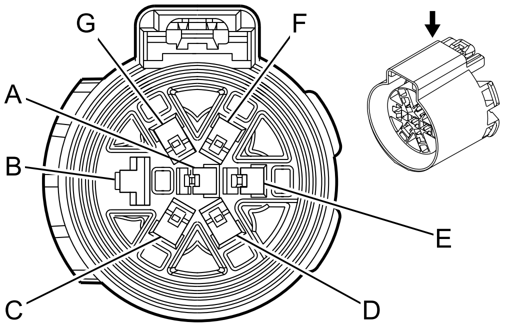
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X85 Steering Wheel Air Bag Coil X5 (UVD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD	1139	Run/Crank Ignition 1 Voltage	I	X88 or Z88
	0.5	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	Z75
2	0.75	BK	1050	Ground	I	X88 or Z88
	0.5	BK	1050	Ground	I	Z75

X88 Trailer Connector



Connector Part Information

Harness Type: Chassis

OEM Connector: 13857223

Service Connector: 13583927

Description: 7-Way F 280 Metri Pack, 630 Series, Sealed (BK)

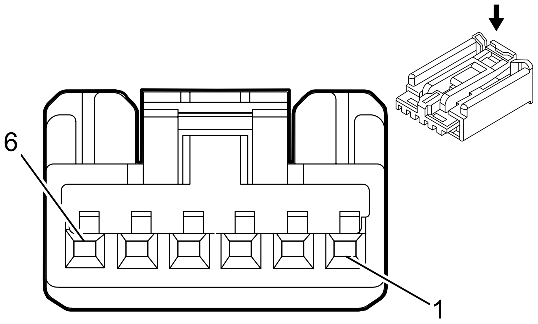
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available

X88 Trailer Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH/L-GN	1624	Trailer Backup Lamp Supply Voltage	I	-
B	5 6	WH WH	22 22	Trailer Ground Trailer Ground	II	-
C	2.5	D-BU	47	Trailer Auxiliary Supply Voltage	I	-
D	0.75	L-GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Supply Voltage	I	-
E	4	RD/L-GN	742	Battery Positive Voltage	I	-
F	1.5	GY/BN	2109	Trailer Park Lamp Supply Voltage	I	-
G	0.75	YE/GY	1618	Left Rear Trailer Stop/Turn Lamp Supply Voltage	I	-

X92 USB Receptacle X1 (D07 with IO5 or IO6)



Connector Part Information

Harness Type: Floor Console

OEM Connector: 13595476

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64 Kaizen Series (BK)

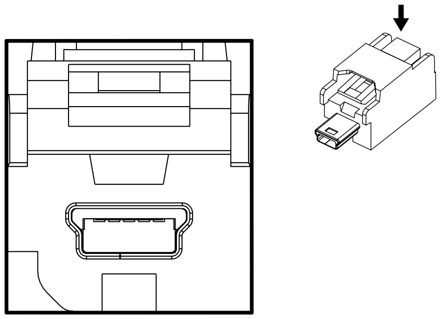
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

X92 USB Receptacle X1 (D07 with IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1-3	-	-	-	Not Occupied	-	-
4	0.35	BK	2550	Ground	I	-
5	-	-	-	Not Occupied	-	-
6	0.75	RD/VT	340	Battery Positive Voltage	I	-

X92 USB Receptacle X2 (D07 with IO5 or IO6)



Connector Part Information

Harness Type: Floor Console Jumper USB

OEM Connector: 13868840

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way F USB Type (GY)

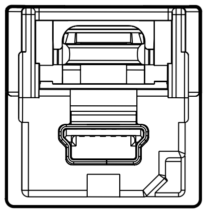
Terminal Part Information

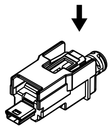
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X92 USB Receptacle X2 (D07 with IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X92 USB Receptacle X3 (D07 with IO5 or IO6)





Connector Part Information

Harness Type: Floor Console Jumper USB

OEM Connector: 13868727

Service Connector: Service by Cable Assembly — See Parts Catalog

Description: 5-Way F USB Type (BK)

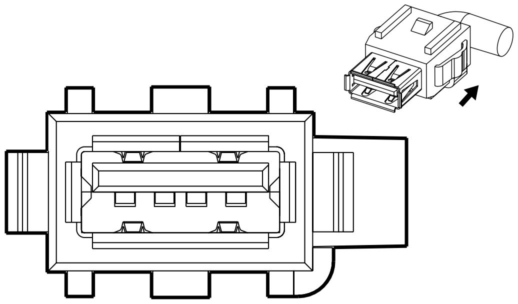
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X92 USB Receptacle X3 (D07 with IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X92A USB Receptacle - Instrument Panel Compartment (IO5 or IO6)



Connector Part Information

Harness Type: Instrument Panel USB

OEM Connector: 13890965

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way F 2.0 Standard A USB Type (BK)

Terminal Part Information

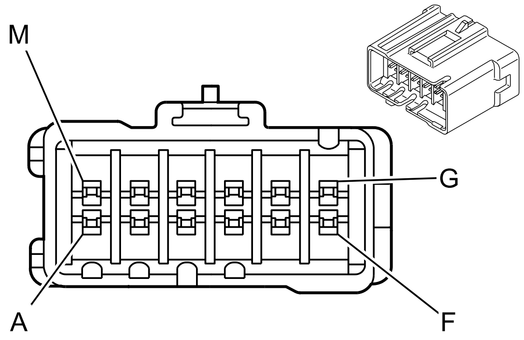
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X92A USB Receptacle - Instrument Panel Compartment (IO5 or IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

Splice Pack Connector End Views

JX200 Splice Pack - Instrument Panel



Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15305291

Service Connector: 15305291

Description: 12-Way F 280 Metri Pack Series (BK)

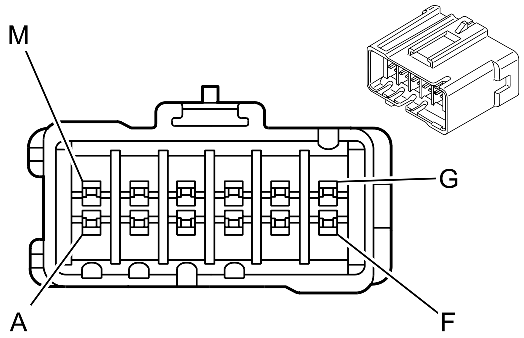
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575719	J-35616-4A (PU)	J-38125-553	12110844	4	E	A
II	13575719	J-35616-4A (PU)	J-38125-553	12110844	4	E	4

JX200 Splice Pack - Instrument Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
B	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
C	-	-	-	Not Occupied	-	-
D	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
E	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
F	-	-	-	Not Occupied	-	-
G	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
H	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
J	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
K	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
L	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
M	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-

JX300 Splice Pack - Body



Connector Part Information

Harness Type: Body

OEM Connector: 15305291

Service Connector: 15305291

Description: 12-Way F 280 Metri Pack Series (BK)

Terminal Part Information

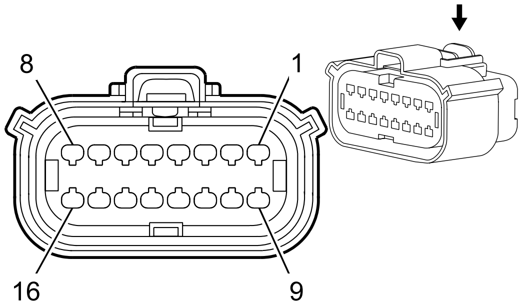
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575719	J-35616-4A (PU)	J-38125-553	12110844	4	E	A
II	13575719	J-35616-4A (PU)	J-38125-553	12110844	4	E	4
III	13575719	J-35616-4A (PU)	J-38125-553	12110844	4	C	A
IV	13579957	J-35616-4A (PU)	J-38125-553	12110842	4	Not Available	Not Available
V	13579957	J-35616-4A (PU)	J-38125-553	12110842	4	C	A

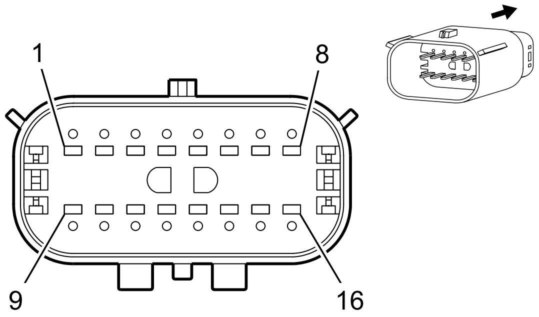
JX300 Splice Pack - Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
B	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
C	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
D	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
E	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
F	0.35	L-GN	5060	Low Speed GMLAN Serial Data	II	-
G	0.75 0.5	L-GN L-GN	5060 5060	Low Speed GMLAN Serial Data Low Speed GMLAN Serial Data	III	-
H	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
J	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
K	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
L	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-

L	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-
M	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	-

X100 Forward Lamp Harness to Front Bumper Harness (X88 or Z88)





Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13778557

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13551665

Service Connector: 19300393

Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

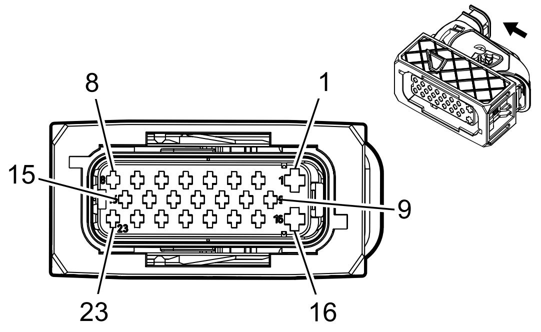
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	13587410	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

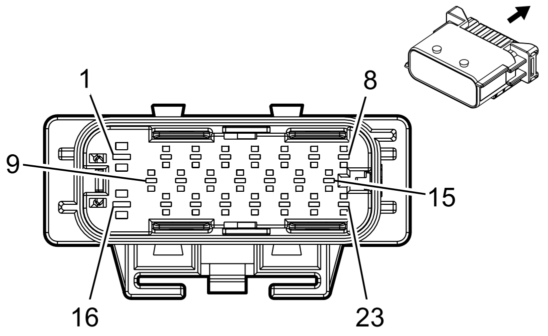
X100 Forward Lamp Harness to Front Bumper Harness (X88 or Z88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	150	I	T3U	Ground	1	0.75	BK	150	II	T3U
2	0.5	BK	250	I	T3U	Ground	2	1	BK	250	II	T3U
3	0.5	BN/VT	2234	I	T3U	Front Fog Lamp Supply Voltage	3	0.5	BN/VT	2234	II	T3U
4	0.5	YE/L-GN	5213	I	UD5	Front Parking Left/Right/Mid Sensor	4	0.5	YE/VT	5213	II	UD5

5	0.5	VT/WH	5215	I	UD5	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	UD5
6	0.5	YE/GY	5216	I	UD5	Front Parking Left Mid Sensor	6	0.5	YE/GY	5216	II	UD5
7	0.5	WH/GY	5217	I	UD5	Front Parking Right Corner Sensor	7	0.5	WH/GY	5217	II	UD5
8-9	-	-	-	-	-	Not Occupied	8-9	-	-	-	-	-
10	0.5	VT/GY	5218	I	UD5	Front Parking Right Mid Sensor	10	0.5	VT/GY	5218	II	UD5
11	0.5	BK/D-BU	5214	I	UD5	Front Parking Sensor Low Reference	11	0.5	BK/D-BU	5214	II	UD5
12-16	-	-	-	-	-	Not Occupied	12-16	-	-	-	-	-

X100 Forward Lamp Harness to Front Bumper Harness (Z75 without AVF)





Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13674800

Service Connector: Service by Harness — See Part Catalog

Description: 23-Way F 1.5 DSQ, 2.8 AST Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13674783

Service Connector: 19303858

Description: 23-Way M 1.5 DSQ, 2.8 AST Series, Sealed (BK)

Terminal Part Information

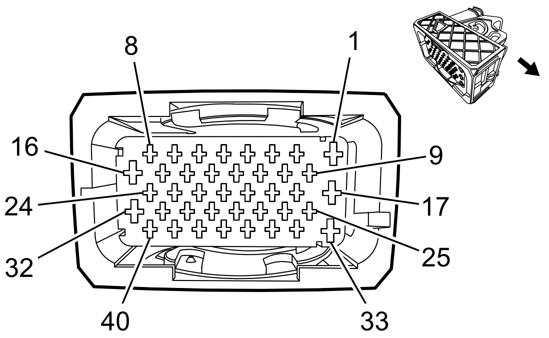
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13584548	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13327190	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

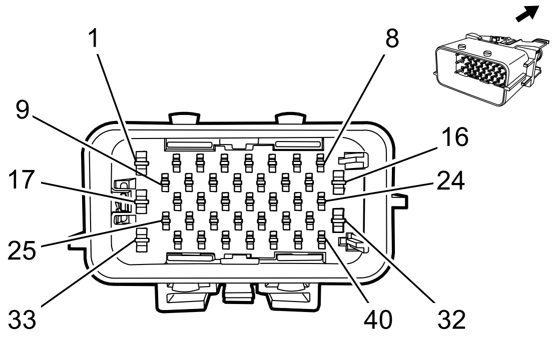
X100 Forward Lamp Harness to Front Bumper Harness (Z75 without AVF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	250	I	-	Ground	1	1	BK	250	II	-
2	0.5	YE/GY	57	I	-	Left Cornering Lamp Supply Voltage	2	0.5	YE/GY	57	III	-
3	0.5	YE/WH	58	I	-	Right Cornering Lamp Supply Voltage	3	0.5	YE/WH	58	III	-

4	0.5	YE/GN	5213	I	-	Front Parking Left/Right/Mid Sensor	4	0.5	YE/GN	5213	III	-
5	0.5	VT/WH	5215	I	-	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	III	-
6	0.5	YE/GY	5216	I	-	Front Parking Left Mid Sensor	6	0.5	YE/GY	5216	III	-
7	0.5	WH/GY	5217	I	-	Front Parking Right Corner Sensor	7	0.5	WH/GY	5217	III	-
8	0.75	GY/D-BU	7538	I	-	Left Front DRL Supply Voltage	8	0.75	GY/D-BU	7538	III	-
9	0.5	VT/GY	709	I	-	Left Park Lamp Supply Voltage	9	0.5	VT/GY	709	III	-
10	0.5	VT/GY	5218	I	-	Front Parking Right Mid Sensor	10	0.5	VT/GY	5218	III	-
11	0.5	BK/D-BU	5214	I	-	Front Parking Sensor Low Reference	11	0.5	BK/D-BU	5214	III	-
12	0.5	D-BU/VT	3813	I	UVZ	High Speed GMLAN Serial Data (+) (4)	12	0.5	D-BU/VT	3813	III	UVZ
13	0.5	WH	3811	I	UVZ	High Speed GMLAN Serial Data (-) (4)	13	0.5	WH	3811	III	UVZ
14	0.5	D-BU/VT	3813	I	UVZ	High Speed GMLAN Serial Data (+) (4)	14	0.5	D-BU/VT	3813	III	UVZ
15	0.5	WH	3811	I	UVZ	High Speed GMLAN Serial Data (-) (4)	15	0.5	WH	3811	III	UVZ
16	0.75	BK	150	I	-	Ground	16	0.75	BK	150	II	-
17	0.5	GY/BN	309	I	-	Right Park Lamp Supply Voltage	17	0.5	GY/BN	309	III	-
18	0.75	D-BU/BN	7539	I	-	Right Front DRL Supply Voltage	18	0.75	D-BU/BN	7539	III	-
19	0.5	GY/VT	3808	I	UVZ	Front Object Sensor Supply Voltage (2)	19	0.5	GY/VT	3808	III	UVZ
20	-	-	-	-	-	Not Occupied	20	-	-	-	-	-
21	0.75	D-BU/WH	1314	I	-	Left Front Turn Signal Lamp Supply Voltage	21	0.75	D-BU/WH	1314	III	-
22	-	-	-	-	-	Not Occupied	22	-	-	-	-	-
23	0.75	L-GN/VT	1315	I	-	Right Front Turn Signal Lamp Supply Voltage	23	0.75	L-GN/VT	1315	III	-

X100 Forward Lamp Harness to Front Bumper Harness (Z75 with AVF)





Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13603185

Service Connector: Service by Harness - See Part Catalog

Description: 40-Way F 1.5, 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13603208

Service Connector: 13576551

Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	13327190	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13582344	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

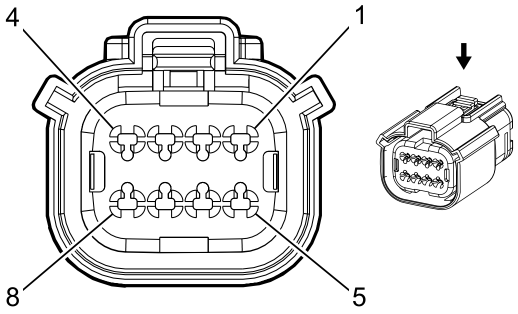
X100 Forward Lamp Harness to Front Bumper Harness (Z75 with AVF)

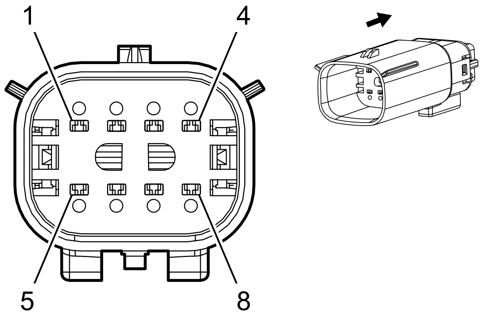
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	0.5	YE/GY	57	I	-	Left Cornering Lamp Supply Voltage	2	0.5	YE/GY	57	II	-
3	0.5	YE/WH	58	I	-	Right Cornering Lamp Supply Voltage	3	0.5	YE/WH	58	II	-

4	0.5	YE/L-GN	5213	I	-	Front Parking Left/Right/Mid Sensor	4	0.5	YE/VT	5213	II	-
5	0.5	VT/WH	5215	I	-	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	-
6	0.5	YE/GY	5216	I	-	Front Parking Left Mid Sensor	6	0.5	YE/GY	5216	II	-
7	0.5	WH/GY	5217	I	-	Front Parking Right Corner Sensor	7	0.5	WH/GY	5217	II	-
8	0.75	GY/D-BU	7538	I	-	Left Front DRL Supply Voltage	8	0.75	GY/D-BU	7538	II	-
9	0.75	VT/GY	709	I	-	Left Park Lamp Supply Voltage	9	0.5	VT/GY	709	II	-
10	0.5	VT/GY	5218	I	-	Front Parking Right Mid Sensor	10	0.5	VT/GY	5218	II	-
11	0.5	BK/D-BU	5214	I	-	Front Parking Sensor Low Reference	11	0.5	BK/D-BU	5214	II	-
12	0.5	D-BU/VT	3813	I	UVZ	High Speed GMLAN Serial Data (+) (4)	12	0.5	D-BU/VT	3813	II	UVZ
13	0.5	WH	3811	I	UVZ	High Speed GMLAN Serial Data (-) (4)	13	0.5	WH	3811	II	UVZ
14	0.5	D-BU/VT	3813	I	UVZ	High Speed GMLAN Serial Data (+) (4)	14	0.5	D-BU/VT	3813	II	UVZ
15	0.5	WH	3811	I	UVZ	High Speed GMLAN Serial Data (-) (4)	15	0.5	WH	3811	II	UVZ
16–17	-	-	-	-	-	-	16–17	-	-	-	-	-
18	0.75	D-BU/BN	7539	I	-	Right Front DRL Supply Voltage	18	0.75	D-BU/BN	7539	II	-
19	0.5	GY/VT	3808	I	UVZ	Front Object Sensor Supply Voltage (2)	19	0.5	GY/VT	3808	II	UVZ
20	-	-	-	-	-	Not Occupied	20	-	-	-	-	-
21	0.75	D-BU/WH	1314	I	-	Left Front Turn Signal Lamp Supply Voltage	21	0.75	D-BU/WH	1314	II	-
22	-	-	-	-	-	Not Occupied	22	-	-	-	-	-
23	0.75	L-GN/VT	1315	I	-	Right Front Turn Signal Lamp Supply Voltage	23	0.75	L-GN/VT	1315	II	-
24	0.75	GY/BN	309	I	-	Right Park Lamp Supply Voltage	24	0.5	GY/BN	309	II	-
25	0.75	BK	150	I	-	Ground	25	0.75	BK	150	II	-
26	0.75	BK	250	I	-	Ground	26	0.75	BK	250	II	-
27	0.35	BK/WH	2551	I	UVH	Signal Ground	27	0.5	BK/WH	2551	II	UVH
28	0.35	BK	3371	I	UVH	Video Drain Wire (2)	28	0.5	BK	3371	II	UVH

28	0.35	BK	3371	I	UVH	Video Drain Wire (2)	28	0.5	BK	3371	II	UVH
29	0.35	D-BU	3373	I	UVH	Auxiliary Video High Signal (2)	29	0.5	D-BU	3373	II	UVH
30	0.35	GY	3372	I	UVH	Auxiliary Video Low Signal (2)	30	0.5	GY	3372	II	UVH
31	0.35	WH/BN	6201	I	UVH	Camera Supply Voltage	31	0.5	WH/BN	6201	II	UVH
32-33	-	-	-	-	-	Not Occupied	32-33	-	-	-	-	-
34	0.5	BK	9001	I	-		34	0.5	BK	9001	II	-
35	0.5	BK	9000	I	-		35	0.5	BK	9000	II	-
36-40	-	-	-	-	-	Not Occupied	36-40	-	-	-	-	-

X101 Front Bumper Harness to Left Multifunction Lamp Harness (Z75)





Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13654393

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Left Multifunction Lamp Harness

OEM Connector:

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

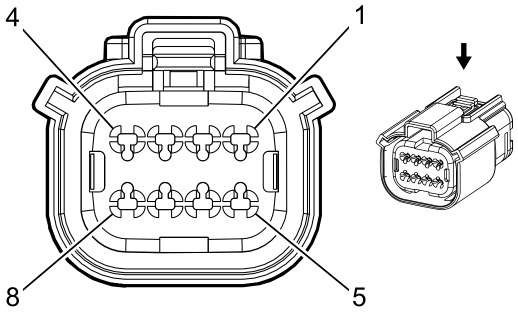
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

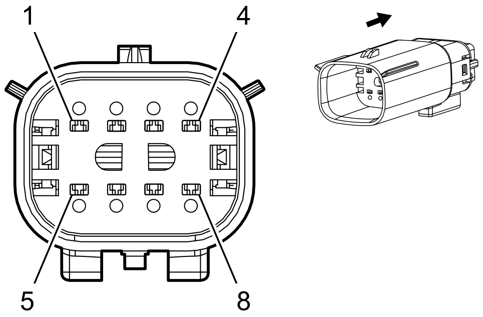
X101 Front Bumper Harness to Left Multifunction Lamp Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	150	I	-	Ground	1	0.75	BK	150	II	-
2	0.75	D-BU/WH	1314	I	-	Left Front Turn Signal Lamp Supply Voltage	2	0.75	BK	1314	II	-
3	0.75	PU/GY	709	I	-	Left Park Lamp Supply Voltage	3	0.75	BK	709	II	-
4	0.75	GY/D-BU	7538	I	-	Left Front DRL Supply Voltage	4	0.75	BK	7538	II	-

5	0.5	BK	9001	I	-		5	0.5	BK	9001	II	-
6	0.5	YE/GY	57	I	-	Left Cornering Lamp Supply Voltage	6	0.5	BK	57	II	-
7-8	-	-	-	-	-	Not Occupied	7-8	-	-	-	-	-

X104 Front Bumper Harness to Right Multifunction Lamp Harness (Z75)





Connector Part Information

Harness Type: Front Bumper

OEM Connector: 13654393

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Right Multifunction Lamp

OEM Connector:

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

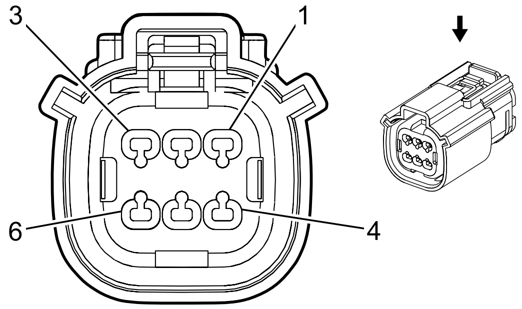
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

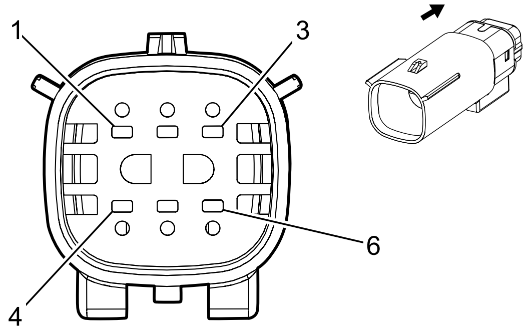
X104 Front Bumper Harness to Right Multifunction Lamp Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	-	Ground	1	0.75	BK	250	II	-
2	0.75	L-GN/VT	1315	I	-	Right Front Turn Signal Lamp Supply Voltage	2	0.75	BK	1315	II	-
3	0.75	GY/BN	309	I	-	Right Park Lamp Supply Voltage	3	0.75	BK	309	II	-
4	0.75	D-BU/BN	7539	I	-	Right Front DRL Supply Voltage	4	0.75	BK	7539	II	-

5	0.5	BK	9000	I	-		5	0.5	BK	9000	II	-
6	0.5	YE/WH	58	I	-	Right Cornering Lamp Supply Voltage	6	0.5	BK	58	II	-
7-8	-	-	-	-	-	Not Occupied	7-8	-	-	-	-	-

X106 Aero Shutter Jumper Harness to Forward Lamp Harness (Z75)





Connector Part Information

Harness Type: Aero Shutter Jumper

OEM Connector: 19178149

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 15457002

Service Connector: 13576414

Description: 6-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

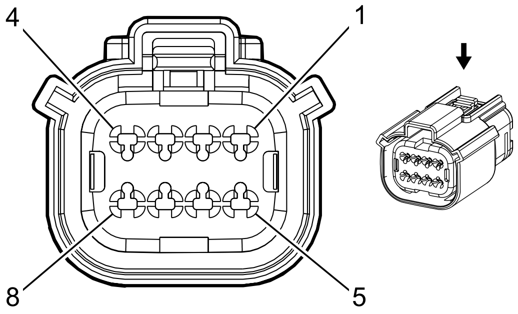
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13587410	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

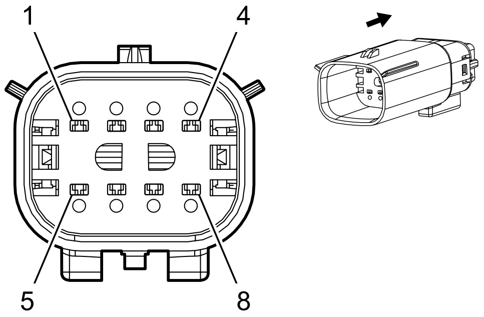
X106 Aero Shutter Jumper Harness to Forward Lamp Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	250	I	-	Ground	1	1	BK	250	II	-
2	0.5	WH/PU	4333	I	-	Aero Shutter Actuator Supply Voltage	2	0.5	WH/PU	4333	III	-
3	0.5	BN	3891	I	-	Aero Shutter Control	3	0.5	BN	3891	III	-
4	0.5	GY	3890	I	-	Aero Shutter Control 2	4	0.5	GY	3890	III	-

5	0.5	BK/D-BU	61	I	-	Outside Ambient Temperature Sensor Low Reference	5	0.5	BK/D-BU	61	III	-
6	0.5	D-BU/GY	636	I	-	Outside Ambient Air Temperature Sensor Signal	6	0.5	D-BU/GY	636	III	-

X110 Forward Lamp Harness to Left Headlamp Harness (X88 or Z88)





Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13654393

Service Connector: 13577527

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Left Headlamp

OEM Connector: 13503538

Service Connector: Service by Component - See Part Catalog

Description: 8–Way M 1.5 Series, Sealed (BK)

Terminal Part Information

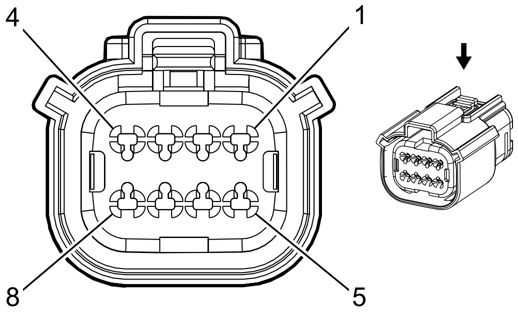
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575808	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	A/E	A/C
II	13575809	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	E	2
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

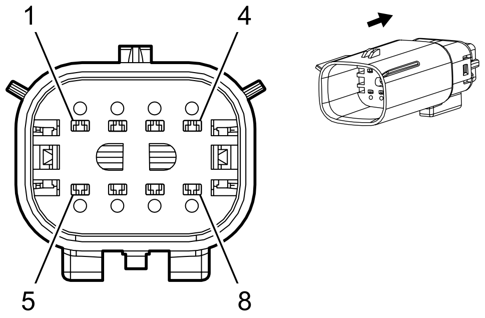
X110 Forward Lamp Harness to Left Headlamp Harness (X88 or Z88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	150	I	-	Ground	1	0.75	BK	150	III	-
2	0.75	YE	712	I	-	Left Headlamp Low Beam Supply Voltage	2	0.75	PU	712	III	-
3	0.75	WH	711	II	-	Left Headlamp High Beam Supply Voltage	3	0.5	WH	711	III	-

4	0.75	BK	150	I	-	Ground	4	0.75	BK	150	III	-
5	0.75	D-BU/WH	1314	I	-	Left Front Turn Signal Lamp Supply Voltage	5	0.75	RD	1314	III	-
6	0.75 0.5	GY/D-BU VT/GY	7538 709	I	Y91 without Y91	Left Front DRL Supply Voltage Left Park Lamp Supply Voltage	6	0.75 0.75	GN GN	7538 709	III	Y91 without Y91
7	0.5	VT/GY	709	II	-	Left Park Lamp Supply Voltage	7	0.5	BU	709	III	-
8	0.5	D-BU/VT	3204	II	Z88	Left Headlamp Bulb Outage Signal	8	0.5	YE	3204	III	Z88

X110 Forward Lamp Harness to Left Headlamp Harness (Z75)





Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13654393

Service Connector: 13577527

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Left Headlamp

OEM Connector: 13503538

Service Connector: Service by Component - See Part Catalog

Description: 8–Way M 1.5 Series, Sealed (BK)

Terminal Part Information

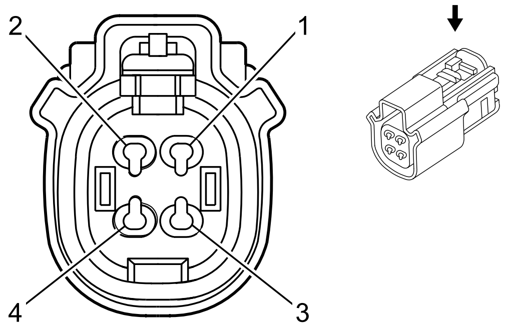
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575808	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	A/E	A/C
II	13575809	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	E	2
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

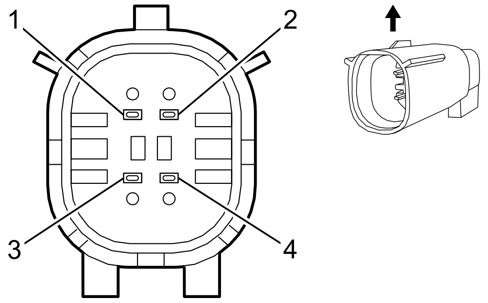
X110 Forward Lamp Harness to Left Headlamp Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	150	I	-	Ground	1	0.75	BK	150	III	-
2	0.75	YE	712	I	-	Left Headlamp Low Beam Supply Voltage	2	0.75	BK	712	III	-
3	0.75	WH	711	II		Left Headlamp High Beam Supply Voltage	3	0.5	BK	711	III	-

4	0.75	BK	150	I	-	Ground	4	0.75	BK	150	III	-
5	0.5	BK	9001	I	AVF		5	0.75	BK	9001	III	AVF
6	0.75	GY/D-BU	7538	I	-	Left Front DRL Supply Voltage	6	0.75	BK	7538	III	-
7	0.5	VT/GY	709	II	-	Left Park Lamp Supply Voltage	7	0.5	BK	709	III	-
8	-	-	-	-	-	Not Occupied	8	-	-	-	-	-

X111 Front Axle Jumper Harness to Engine Harness (NP0 or NQH)





Connector Part Information

Harness Type: Front Axle Jumper

OEM Connector: 13872556

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Engine

OEM Connector: 13586625

Service Connector: 19329823

Description: 4-Way M 150 MX Series, Sealed (BK)

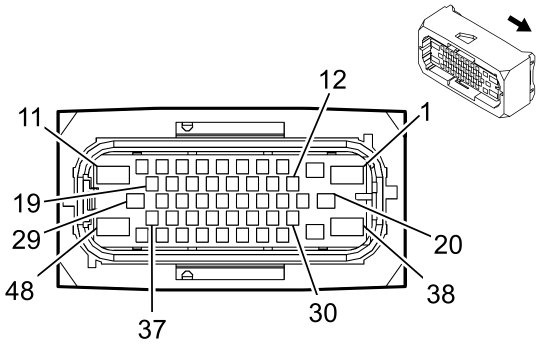
Terminal Part Information

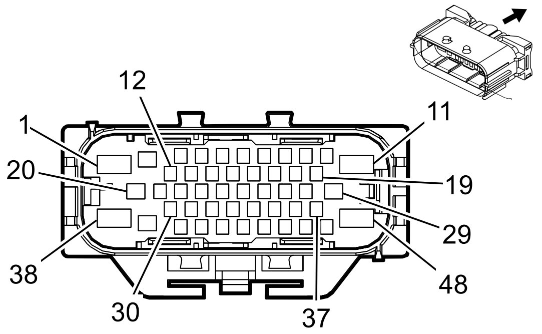
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

X111 Front Axle Jumper Harness to Engine Harness (NP0 or NQH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE/WH	1695	I	-	Four Wheel Drive Wheel Lock Indicator	1	0.5	YE/WH	1695	II	-
2	0.5	GY/BK	1570	I	-	Front Axle Actuator Control	2	0.5	GY/BK	1570	II	-
3	0.5	VT/BK	2139	I	-	Run/Crank Ignition 1 Voltage	3	0.5	VT/BK	2139	II	-
4	0.5	BK	550	I	-	Ground	4	1	BK	550	II	-

X115 Engine Harness to Body Harness





Connector Part Information

Harness Type: Engine

OEM Connector: 13937450

Service Connector: 19119963

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 13937617

Service Connector: 13586850

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19119560	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	19329826	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	19329827	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	13584463	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
V	13580829	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VI	13582180	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VII	15327864	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VIII	13579756	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IX	13327190	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
X	13327188	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

X	[illegible]	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
XI	13584548	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
XII	13578881	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

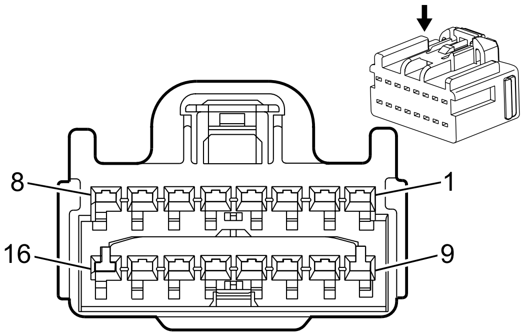
X115 Engine Harness to Body Harness

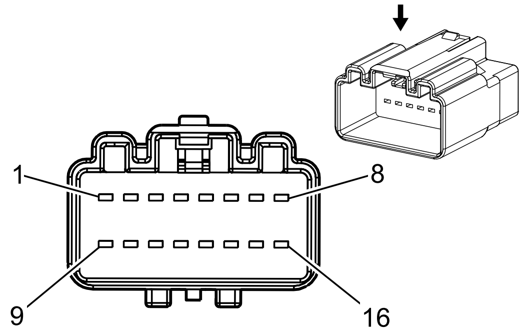
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD/GY	1342	I	NP0 or NQH	Battery Positive Voltage	1	4	RD/GY	1342	VII	NP0 or NQH
2	0.75	D-BU/BN	7573	IV	-	Electric Variable Displacement Supply	2	0.5	D-BU/BN	7573	XI	-
3	0.5	BN/WH	419	III	-	Check Engine Indicator Control	3	0.35	BN/WH	419	X	-
4	0.5	WH/D-BU	6311	III	-	Cruise/ETC/TCC Brake Signal	4	0.35	WH/D-BU	6311	X	-
5	0.5	WH	2501	III	-	High Speed GMLAN Serial Data (-) (1)	5	0.5	WH	2501	IX	-
6	0.5	D-BU	2500	III	-	High Speed GMLAN Serial Data (+) (1)	6	0.5	D-BU	2500	IX	-
7	0.5	WH	5359	III	-	Brake Apply Sensor Supply Voltage	7	0.5	WH	5359	IX	-
8	0.5	BK/BN	5360	III	-	Brake Apply Sensor Low Reference	8	0.5	BK/BN	5360	IX	-
9	0.5	D-BU/YE	5361	III	-	Brake Apply Sensor Signal	9	0.5	D-BU/YE	5361	IX	-
10	0.5	YE/WH	1161	II	-	Accelerator Pedal Position Signal (1)	10	0.35	YE/WH	1161	VIII	-
11	3	BK	550	I	NP0 or NQH	Ground	11	4	BK	550	VII	NP0 or NQH
12	0.5	WH/L-GN	7479	III	NP0 or NQH	Rotary Position Sensor Signal	12	0.5	WH/L-GN	7479	IX	NP0 or NQH
13	0.5	YE/BK	7478	III	NP0 or NQH	Rotary Position Sensor Return	13	0.5	YE/BK	7478	IX	NP0 or NQH
14	0.5	YE/WH	1695	III	NP0 or NQH	Four Wheel Drive Wheel Lock Indicator	14	0.5	YE/WH	1695	IX	NP0 or NQH
15	0.5	GY/BK	1570	III	NP0 or NQH	Front Axle Actuator Control	15	0.5	GY/BK	1570	IX	NP0 or NQH
16	0.5	VT/YE	5985	III	-	Accessory Wakeup Serial Data	16	0.35	VT/YE	5985	X	-
17	0.5	WH/D-BU	5986	III	K59	Serial Data Communication Enable	17	0.5	WH/D-BU	5986	IX	K59
18	0.5	WH/RD	1164	II	-	Accelerator Pedal Position 5 Volt Reference (1)	18	0.35	WH/RD	1164	VIII	-
19	0.5	BK/D-BU	1271	II	-	Accelerator Pedal	19	0.35	BK/D-BU	1271	VIII	-

						Position Low Reference (1)					
20	0.75	D-BU/YE	7574	IV	-	Electric Variable Displacement Control	20	0.5	D-BU/YE	7574	XI	-
21	0.5	WH/RD	7477	III	NP0 or NQH	Rotary Position Sensor Supply 5V	21	0.5	WH/RD	7477	IX	NP0 or NQH
22	0.5	D-BU/GY	7473	III	NP0 or NQH	Incremental Encoder Impulse Signal	22	0.35	D-BU/GY	7473	X	NP0 or NQH
23	0.5	VT	7476	III	NP0 or NQH	Incremental Encoder Sensor Return	23	0.35	VT	7476	X	NP0 or NQH
24	-	-	-	-	-	Not Occupied	24	-	-	-	-	-
25	0.5	BN/RD	1274	II	-	Accelerator Pedal Position 5 Volt Reference (2)	25	0.35	BN/RD	1274	VIII	-
26	0.5	L-GN/WH	1162	II	-	Accelerator Pedal Position Signal (2)	26	0.35	L-GN/WH	1162	VIII	-
27	0.5	BK/PU	1272	II	-	Accelerator Pedal Position Low Reference (2)	27	0.35	BK/VT	1272	VIII	-
28	0.5	VT/D-BU	6091	III	NKC	Crankshaft Position Sensor Replicated Signal	28	0.35	VT/D-BU	6091	X	NKC
29	2.5	YE/BN	1569	V	NP0 or NQH	Transfer Case Lock Solenoid Control	29	2.5	YE/BN	1569	XII	NP0 or NQH
30	0.5	WH/L-GN	7475	III	NP0 or NQH	Incremental Encoder Sensor (8V) Supply	30	0.35	WH/L-GN	7475	X	NP0 or NQH
31	0.5	YE	7474	III	NP0 or NQH	Incremental Encoder Direction Signal	31	0.35	YE	7474	X	NP0 or NQH
32	0.5	BK/PU	5077	III	-	Current Sensor Low Reference	32	0.35	BK/VT	5077	X	-
33	0.5	WH/YE	5075	III	-	Current Sensor Signal	33	0.35	WH/YE	5075	X	-
34	0.5	D-BU/VT	5076	III	-	Current Sensor Supply Voltage	34	0.35	D-BU/VT	5076	X	-
35	0.5	D-BU/YE	6105	III	-	High Speed GMLAN Serial Data (+) (2)	35	0.5	D-BU/YE	6105	IX	-
36	0.5	WH	6106	III	-	High Speed GMLAN Serial Data (-) (2)	36	0.5	WH	6106	IX	-
37	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
38	3	YE/VT	1553	I	NP0 or NQH	Transfer Case Motor Counter Clockwise Control	38	4	YE/VT	1553	VII	NP0 or NQH
39–41	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
42	0.5	VT/BN	300	III	5W4 or 9C1	Run Ignition 3 Voltage	42	0.5	VT/BN	300	IX	5W4 or 9C1

43–47	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
48	3	OG	1552	I	NP0 or NQH	Transfer Case Motor Clockwise Control	48	2.5	YE/GY	1552	VII	NP0 or NQH

X119 Body Harness to Brake Clutch Jumper Harness





Connector Part Information

Harness Type: Body

OEM Connector: 10847013

Service Connector: 89047090

Description: 16-Way F 1.5 Kaizen Series (GN)

Connector Part Information

Harness Type: Brake Clutch Jumper

OEM Connector: 13507433

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way M 1.5 Kaizen Series (GN)

Terminal Part Information

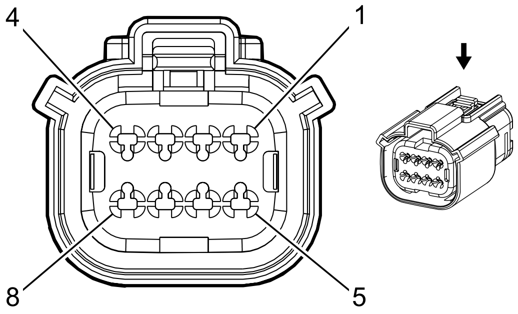
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578813	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	19119962	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

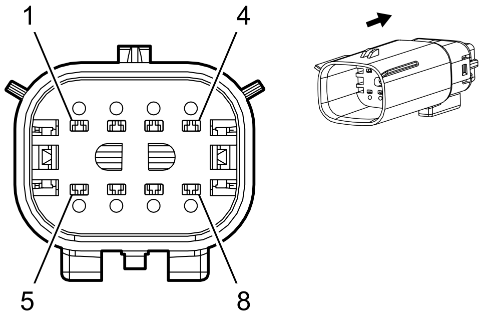
X119 Body Harness to Brake Clutch Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BK/D-BU	1271	I	-	Accelerator Pedal Position Low Reference (1)	1	0.35	BK/D-BU	1271	III	-
2	0.35	YE/WH	1161	I	-	Accelerator Pedal Position Signal (1)	2	0.35	YE/WH	1161	III	-
3	0.35	WH/RD	1164	I	-	Accelerator Pedal	3	0.35	WH/RD	1164	III	-

						Position 5 Volt Reference (1)						
4	0.35	BK/VT	1272	I	-	Accelerator Pedal Position Low Reference (2)	4	0.35	BK/VT	1272	III	-
5	0.35	L-GN/WH	1162	I	-	Accelerator Pedal Position Signal (2)	5	0.35	L-GN/WH	1162	III	-
6	0.35	BN/RD	1274	I	-	Accelerator Pedal Position 5 Volt Reference (2)	6	0.35	BN/RD	1274	III	-
7	0.5	WH	5359	II	-	Brake Apply Sensor Supply Voltage	7	0.5	WH	5359	III	-
8	0.5	BK/BN	5360	II	-	Brake Apply Sensor Low Reference	8	0.5	BK/BN	5360	III	-
9	0.5	D-BU/YE	5361	II	-	Brake Apply Sensor Signal	9	0.5	D-BU/YE	5361	III	-
10	0.5	YE/BK	7478	II	NP0 or NQH	Rotary Position Sensor Return	10	0.5	YE/BK	7478	III	NP0 or NQH
11	0.5	WH/RD	7477	II	NP0 or NQH	Rotary Position Sensor Supply 5V	11	0.5	WH/RD	7477	III	NP0 or NQH
12	0.5	WH/L-GN	7479	II	NP0 or NQH	Rotary Position Sensor Signal	12	0.5	WH/L-GN	7479	III	NP0 or NQH
13-16	-	-	-	-	-	Not Occupied	13-16	-	-	-	-	-

X120 Forward Lamp Harness to Right Headlamp Harness (X88 or Z88)





Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13654393

Service Connector: 13577527

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Left Headlamp

OEM Connector: 13503538

Service Connector: Service by Component - See Part Catalog

Description: 8–Way M 1.5 Series, Sealed (BK)

Terminal Part Information

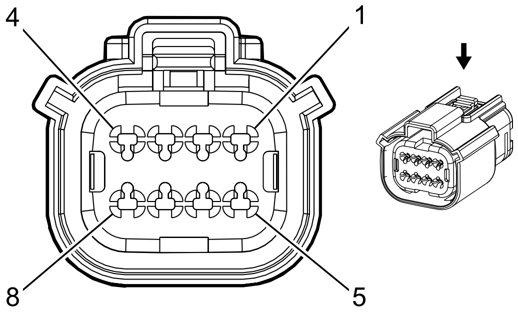
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575808	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	A/E	A/C
II	13575809	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	E	2
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

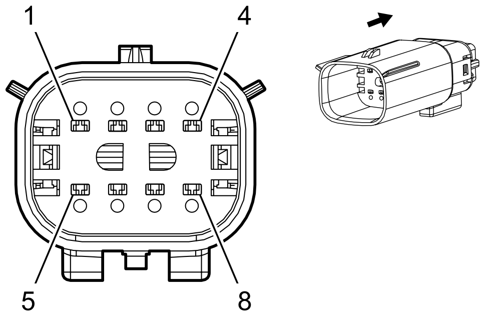
X120 Forward Lamp Harness to Right Headlamp Harness (X88 or Z88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	-	Ground	1	0.75	BK	250	III	-
2	0.75	YE	312	I	-	Right Headlamp Low Beam Supply Voltage	2	0.75	PU	312	III	-
3	0.75	WH	311	II	-	Right Headlamp High Beam Supply Voltage	3	0.5	WH	311	III	-

4	0.75	BK	250	I	-	Ground	4	0.75	BK	250	III	-
5	0.75	L-GN/VT	1315	I	-	Right Front Turn Signal Lamp Supply Voltage	5	0.75	RD	1315	III	-
6	0.75 0.5	D-BU/BN GY/BN	7539 309	I	Y91 without Y91	Right Front DRL Supply Voltage Right Park Lamp Supply Voltage	6	0.75 0.75	GN GN	7539 309	III	Y91 without Y91
7	0.5	GY/BN	309	II	-	Right Park Lamp Supply Voltage	7	0.5	BU	309	III	-
8	0.5	WH/D-BU	3203	II	Z88	Right Headlamp Bulb Outage Signal	8	0.5	YE	3203	III	Z88

X120 Forward Lamp Harness to Right Headlamp Harness (Z75)





Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13654393

Service Connector: 13577527

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Left Headlamp

OEM Connector: 13503538

Service Connector: Service by Component - See Part Catalog

Description: 8–Way M 1.5 Series, Sealed (BK)

Terminal Part Information

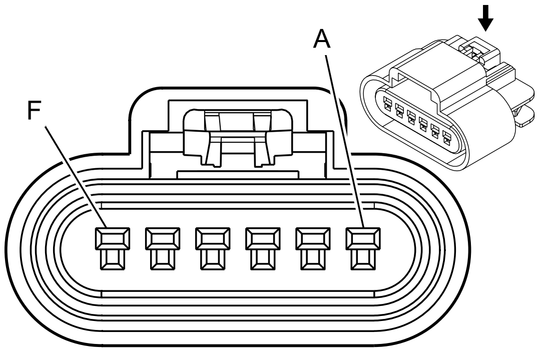
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575808	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	A/E	A/C
II	13575809	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	E	2
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

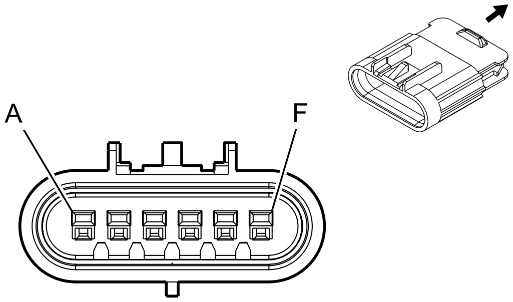
X120 Forward Lamp Harness to Right Headlamp Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	-	Ground	1	0.75	BK	250	III	-
2	0.75	YE	312	I	-	Right Headlamp Low Beam Supply Voltage	2	0.75	BK	312	III	-
3	0.75	WH	311	II	-	Right Headlamp High Beam Supply Voltage	3	0.5	BK	311	III	-

4	0.75	BK	250	I	-	Ground	4	0.75	BK	250	III	-
5	0.5	BK	9000	I	AVF	-	5	0.75	BK	9000	III	AVF
6	0.75	D-BU/BN	7539	I	-	Right Front DRL Supply Voltage	6	0.75	BK	7539	III	-
7	0.5	GY/BN	309	II	-	Right Park Lamp Supply Voltage	7	0.5	BK	309	III	-
8	-	-	-	-	-	Not Occupied	8	-	-	-	-	-

X122 Forward Lamp Harness to Forward Lamp Harness (6J7)





Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 15326829

Service Connector: 13584094

Description: 6-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 15326833

Service Connector: 15326833

Description: 6-Way M 150 GT Series, Sealed (BK)

Terminal Part Information

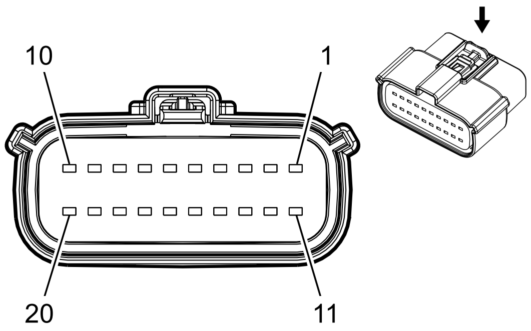
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

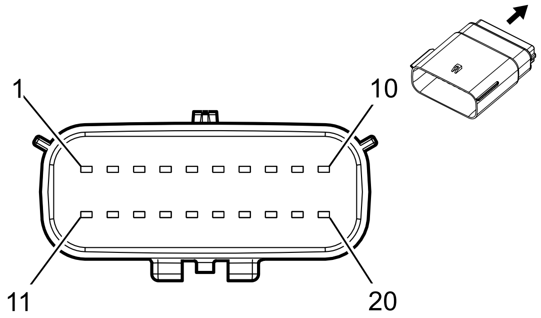
X122 Forward Lamp Harness to Forward Lamp Harness (6J7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	BK	250	I	-	Ground	A	0.75	BK	250	II	-
B	0.75	WH	711	I	-	Left Headlamp High Beam Supply Voltage	B	0.75	WH	711	II	-
C	0.75	RD/D-BU	3940	I	-	Battery Positive Voltage	C	0.75	RD/D-BU	3940	II	-
D	0.75	WH	311	I	-	Right Headlamp High Beam Supply Voltage	D	0.75	WH	311	II	-

E	0.75	L-GN	6820	I	-	Exterior Lamp Flasher Signal	E	0.75	L-GN	6820	II	-
F	0.75	D-BU/L-GN	6841	I	-	Rear Lamp Flasher Signal	F	0.75	D-BU/L-GN	6841	II	-

X125 Engine Harness to Chassis Harness





Connector Part Information

Harness Type: Engine

OEM Connector: 13650143

Service Connector: 19300557

Description: 20-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis

OEM Connector: 13520296

Service Connector: 19300560

Description: 20-Way M 1.5 Series, Sealed (BK)

Terminal Part Information

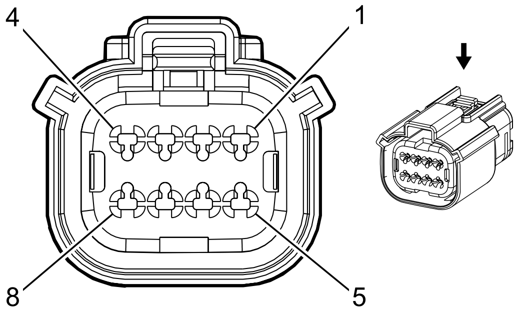
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19300432	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

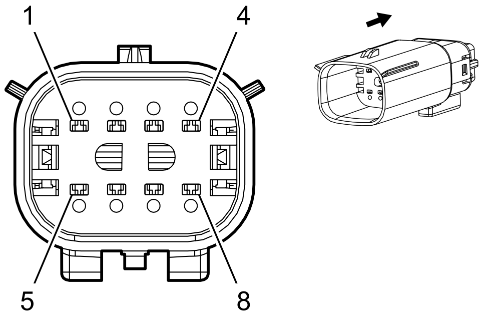
X125 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/D-BU	3120	I	-	Heated Oxygen Sensor High Signal Bank 1 Sensor (2)	1	0.5	VT/D-BU	3120	II	-
2	0.5	WH/YE	3121	I	-	Heated Oxygen Sensor Low Signal Bank 1 Sensor (2)	2	0.5	WH/YE	3121	II	-
3	0.5	GY/WH	3122	I	-	Heated Oxygen Sensor Heater Low Control	3	0.5	GY/WH	3122	II	-

						Bank 1 Sensor (2)					
4	0.5	VT/D-BU	5294	I	-	Powertrain Main Relay Fused Supply (5)	4	0.5	VT/D-BU	5294	II	-
5	0.5	D-BU/YE	6105	I	-	High Speed GMLAN Serial Data (+) (2)	5	0.5	D-BU/YE	6105	II	-
6	0.5	WH	6106	I	-	High Speed GMLAN Serial Data (-) (2)	6	0.5	WH	6106	II	-
7	0.5	WH	1310	I	-	EVAP Canister Vent Solenoid Control	7	0.5	WH	1310	II	-
8	0.5	D-BU/WH	7446	I	-	Fuel Line Pressure Sensor Signal	8	0.5	D-BU/WH	7446	II	-
9	0.5	BK/YE	7447	I	-	Fuel Line Pressure Sensor Low Reference	9	0.5	BK/YE	7447	II	-
10	-	-	-	-	-	Not Occupied	10	-	-	-	-	-
11	0.5	D-BU/VT	1589	I	-	Primary Fuel Level Sensor Signal	11	0.5	D-BU/VT	1589	II	-
12	0.5	BK/L-GN	6281	I	-	Fuel Level Sensor Low Reference	12	0.5	BK/L-GN	6281	II	-
13	0.5	D-BU/BK	7493	I	-	High Speed GMLAN Serial Data (+)(3)	13	0.5	D-BU/BK	7493	II	-
14	0.5	WH	7494	I	-	High Speed GMLAN Serial Data (-)(3)	14	0.5	WH	7494	II	-
15	0.5	D-BU/WH	890	I	-	Fuel Tank Pressure Sensor Signal	15	0.5	D-BU/WH	890	II	-
16	0.5	YE/RD	2709	I	-	Fuel Tank Pressure Sensor 5 Volt Reference	16	0.5	YE/RD	2709	II	-
17	0.5	WH	1579	I	-	Fuel Temperature/Composition Signal	17	0.5	WH	1579	II	-
18	0.5	BN/RD	7445	I	-	Fuel Line Pressure Sensor 5V Reference	18	0.5	BN/RD	7445	II	-
19-20	-	-	-	-	-	Not Occupied	19-20	-	-	-	-	-

X139 Engine Harness to Forward Lamp Harness





Connector Part Information

Harness Type: Engine

OEM Connector: 13654393

Service Connector: 13577527

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 15456955

Service Connector: 19300474

Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

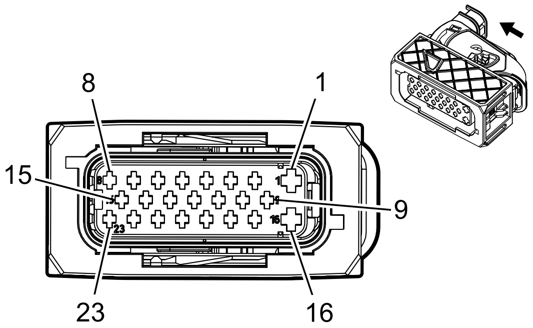
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

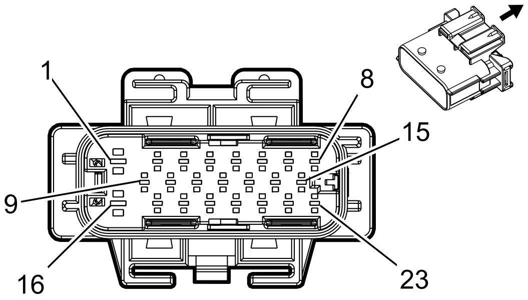
X139 Engine Harness to Forward Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BN/YE	473	I	-	High Speed Cooling Fan Relay Control	1	0.5	BN/YE	473	II	-
2	0.5	BK/D-BU	61	I	-	Outside Ambient Temperature Sensor Low Reference	2	0.5	BK/D-BU	61	II	-
3	0.5	D-BU/GY	636	I	-	Outside Ambient Air Temperature Sensor Signal	3	0.5	D-BU/GY	636	II	-

4	0.5	WH/D-BU	5986	I	K59	Serial Data Communication Enable	4	0.5	WH/D-BU	5986	II	K59
5	0.5	WH	6106	I	K59	High Speed GMLAN Serial Data (-) (2)	5	0.5	WH	6106	II	K59
6	0.5	D-BU/YE	6105	I	K59	High Speed GMLAN Serial Data (+) (2)	6	0.5	D-BU/YE	6105	II	K59
7	0.5	D-BU	2500	I	K59	High Speed GMLAN Serial Data (+) (1)	7	0.5	D-BU	2500	II	K59
8	0.5	WH	2501	I	K59	High Speed GMLAN Serial Data (-) (1)	8	0.5	WH	2501	II	K59

X150 Body Harness to Forward Lamp Harness





Connector Part Information

Harness Type: Body

OEM Connector: 13674800

Service Connector: 19300480

Description: 23-Way F 1.5 DSQ, 2.8 AST Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp

OEM Connector: 13750011

Service Connector: 19301797

Description: 23-Way M 1.5, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575389	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13582248	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13578874	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	13576366	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
V	13575357	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VI	13584548	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VII	13327190	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

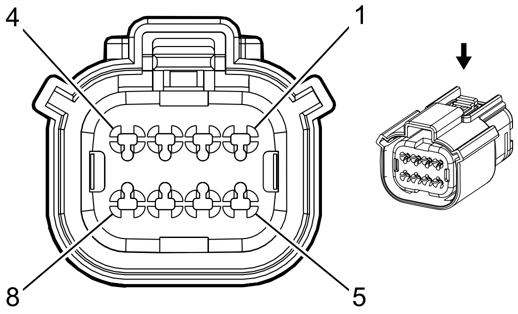
X150 Body Harness to Forward Lamp Harness

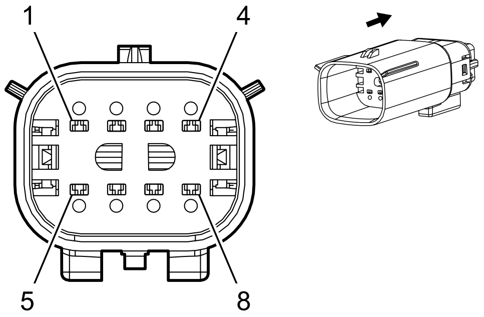
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option

1	0.75	RD/L-GN	3140	I	K59	Battery Positive Voltage	1	0.5	RD/L-GN	3140	VI	K59
2	0.35	WH/BN	6201	IV	UVH	Camera Supply Voltage	2	0.5	WH/BN	6201	VII	UVH
3	0.35	BK/WH	2551	IV	UVH	Signal Ground	3	0.5	BK/WH	2551	VII	UVH
4	0.5	YE/GY	5216	II	UD5	Front Parking Left Mid Sensor	4	0.5	YE/GY	5216	VII	UD5
5	0.5	WH/GY	5217	II	UD5	Front Parking Right Corner Sensor	5	0.5	WH/GY	5217	VII	UD5
6	0.5	VT/GY	5218	II	UD5	Front Parking Right Mid Sensor	6	0.5	VT/GY	5218	VII	UD5
7	0.5	BK/D-BU	5214	II	UD5	Front Parking Sensor Low Reference	7	0.5	BK/D-BU	5214	VII	UD5
8	0.5	VT/WH	5215	II	UD5	Front Parking Left Corner Sensor	8	0.5	VT/WH	5215	VII	UD5
9	0.5	D-BU/VT	3813	III	-	High Speed GMLAN Serial Data (+) (4)	9	0.5	D-BU/VT	3813	VII	-
10	0.5	WH	3811	III	-	High Speed GMLAN Serial Data (-) (4)	10	0.5	WH	3811	VII	-
11	0.35	OG/L-GN	1409	II	-	Right Front Discriminating Sensor Signal	11	0.5	OG/L-GN	1409	VII	-
12	0.35	BK/OG	5600	II	-	Right Front Discriminating Sensor Low Reference	12	0.5	BK/OG	5600	VII	-
13	0.35	GY/VT	3808	IV	UGN	Front Object Sensor Supply Voltage (2)	13	0.5	GY/VT	3808	VII	UGN
14	0.35	VT	185	II	-	Low Washer Fluid Indicator Control	14	0.5	VT	185	VII	-
15	0.5	YE/VT	5213	II	UD5	Front Parking Left/Right/Mid Sensor	15	0.5	YE/VT	5213	VII	UD5
16	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
17	0.35	D-BU	3373	IV	UVH	Auxiliary Video High Signal (2)	17	0.5	D-BU	3373	VII	UVH
18	0.35 0.75	GY D-BU/L-GN	3372 6841	IV	UVH 6J7	Auxiliary Video Low Signal (2) Rear Lamp Flasher Signal	18	0.5 0.75	GY D-BU/L-GN	3372 6841	VII	UVH 6J7
19	0.35 0.75	BK L-GN	3371 6820	IV	UVH 6J7	Video Drain Wire (2) Exterior Lamp Flasher Signal	19	0.5 0.75	BK L-GN	3371 6820	VII	UVH 6J7
20	0.35	OG/YE	354	II	-	Left Front Discriminating Sensor Signal	20	0.5	OG/YE	354	VII	-
21	0.35	BK/OG	5045	II	-	Left Front	21	0.5	BK/OG	5045	VII	-

						Discriminating Sensor Low Reference						
22	-	-	-	-	-	Not Occupied	22	-	-	-	-	-
23	0.5	BN/L-GN	109	II	-	Hood Ajar Switch Signal	23	0.5	BN/L-GN	109	VII	-

X154 Engine Harness to Camshaft Jumper Harness





Connector Part Information

Harness Type: Engine

OEM Connector: 13884361

Service Connector: 19301723

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Camshaft Jumper

OEM Connector: 33482-0827

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

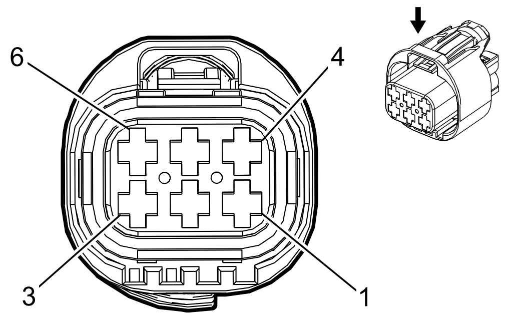
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

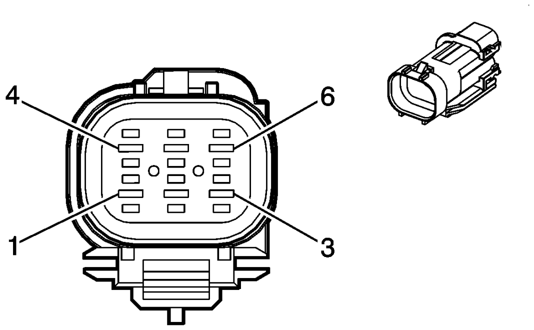
X154 Engine Harness to Camshaft Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/D-BU	5300	I	-	Camshaft Position Intake Sensor Supply Voltage (1)	1	0.5	GY/D-BU	5300	II	-
2	0.5	BK/L-GN	5301	I	-	Camshaft Position Intake Sensor Low Reference (1)	2	0.5	BK/L-GN	5301	II	-
3	0.5	YE/VT	5275	I	-	Camshaft Position Intake Sensor (1)	3	0.5	YE/VT	5275	II	-

4	0.5	D-BU	179	I	-	Oil Pump Command Signal	4	0.5	D-BU	179	II	-
5	0.5	VT/BN	5284	I	-	Camshaft Phaser Intake Solenoid (1)	5	0.5	VT/BN	5284	II	-
6	0.5	BK/BN	6753	I	-	Cam Phaser W Return Low Reference	6	0.5	BK/BN	6753	II	-
7	0.75	VT/D-BU	5293	I	-	Powertrain Main Relay Fused Supply (4)	7	0.75	VT/D-BU	5293	II	-
8	-	-	-	-	-	Not Occupied	8	-	-	-	-	-

X158 Battery Harness to Engine Harness (5W4 or 9C1)





Connector Part Information

Harness Type: Battery

OEM Connector: 13580779

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Engine

OEM Connector: 13893482

Service Connector: 19329921

Description: 6-Way M 2.8 Series, Sealed (BK)

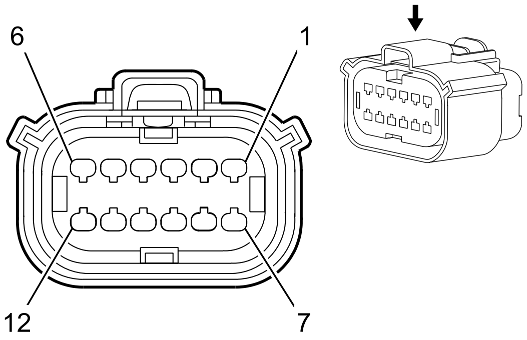
Terminal Part Information

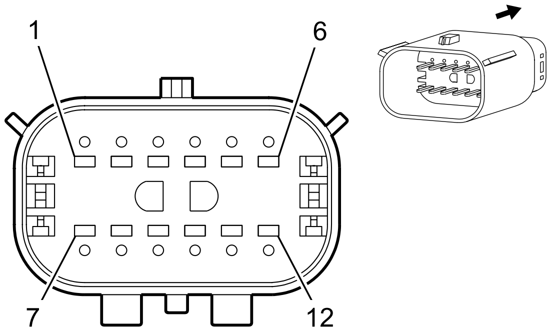
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

X158 Battery Harness to Engine Harness (5W4 or 9C1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/BN	300	I	-	Run Ignition 3 Voltage	1	0.5	VT/BN	300	II	-
2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-
3	0.5	RD/WH	4540	I	-	Battery Positive Voltage	3	0.5	RD/WH	3440	II	-
4	1	BK	550	I	-	Ground	4	1	BK	550	II	-
5	-	-	-	-	-	Not Occupied	5	-	-	-	-	-
6	2.5	RD/L-GN	742	I	-	Battery Positive Voltage	6	2.5	RD/L-GN	742	II	-

X160 Engine Harness to Odd Fuel Injector Harness





Connector Part Information

Harness Type: Engine

OEM Connector: 13653762

Service Connector: 13503528

Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Odd Fuel Injector

OEM Connector: 13503542

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

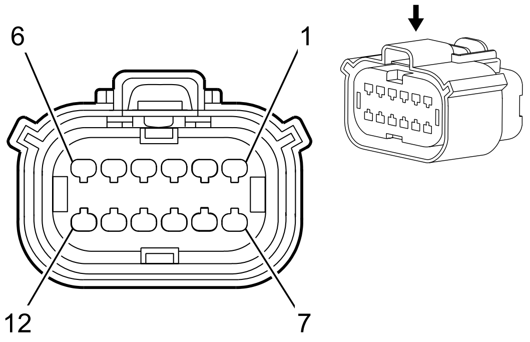
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578813	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

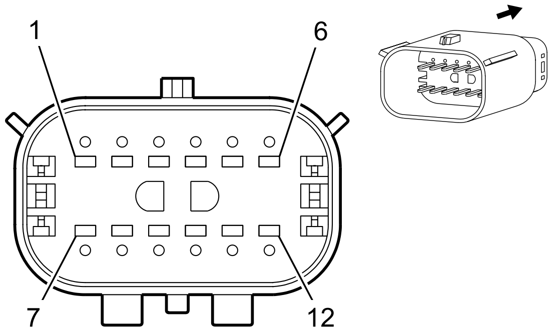
X160 Engine Harness to Odd Fuel Injector Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/WH	4901	I	-	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	1	0.75	BN/WH	4901	II	-
2	0.75	L-GN/GY	4903	I	-	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	2	0.75	L-GN/GY	4903	II	-
3	0.75	L-GN/WH	4905	I	-	Direct Fuel Injector (DFI) High Voltage	3	0.75	L-GN/WH	4905	II	-

						Supply Cylinder 5						
4	0.75	WH/YE	4907	I	-	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	4	0.75	WH/YE	4907	II	-
5	0.75	BN	4801	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	5	0.75	BN	4801	II	-
6	0.5	BN/YE	2161	I	-	Fuel Rail Pressure Sensor #2 Signal	6	0.5	BN/YE	2161	II	-
7	0.75	L-GN	4803	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	7	0.75	L-GN	4803	II	-
8	0.75	WH/L-GN	4805	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	8	0.75	WH/L-GN	4805	II	-
9	0.75	YE/GY	4807	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	9	0.75	YE/GY	4807	II	-
10	0.5	BN/RD	2917	I	-	Fuel Rail Pressure Sensor (5) Volt Reference	10	0.5	BN/RD	2917	II	-
11	0.5	D-BU/WH	2918	I	-	Fuel Rail Pressure Sensor Signal	11	0.5	D-BU/WH	2918	II	-
12	0.5	BK/L-GN	2919	I	-	Fuel Rail Pressure Sensor Low Reference	12	0.5	BK/L-GN	2919	II	-

X161 Engine Harness to Even Fuel Injector Harness





Connector Part Information

Harness Type: Engine

OEM Connector: 13922706

Service Connector: 13503528

Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Even Fuel Injector

OEM Connector: 13577094

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

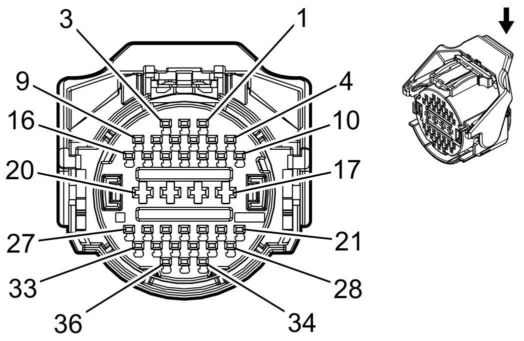
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578813	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

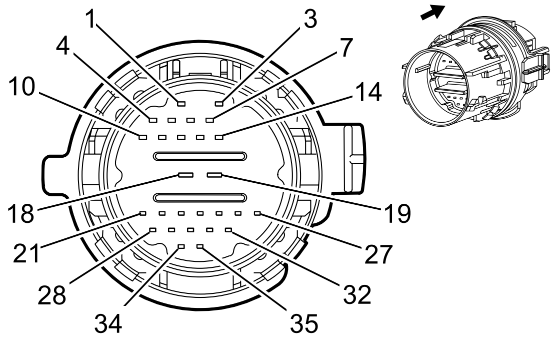
X161 Engine Harness to Even Fuel Injector Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	D-BU/GY	4902	I	-	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	1	0.75	D-BU/GY	4902	II	-
2	0.75	D-BU/WH	4904	I	-	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	2	0.75	D-BU/WH	4904	II	-
3	0.75	PU/GY	4906	I	-	Direct Fuel Injector (DFI) High Voltage	3	0.75	PU/GY	4906	II	-

						Supply Cylinder 6						
4	0.75	GY/WH	4908	I	-	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	4	0.75	GY/WH	4908	II	-
5	0.75	D-BU	4802	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	5	0.75	D-BU	4802	II	-
6-7	-	-	-	-	-	Not Occupied	6-7	-	-	-	-	-
8	0.75	GY/D-BU	4804	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	8	0.75	GY/D-BU	4804	II	-
9	0.75	PU/L-GN	4806	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	9	0.75	PU/L-GN	4806	II	-
10	0.75	GY	4808	I	-	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	10	0.75	GY	4808	II	-
11	0.75	VT/BK	7300	I	-	High Pressure Fuel Pump Actuator Low - Control	11	0.75	VT/BK	7300	II	-
12	0.75	YE	7301	I	-	High Pressure Fuel Pump Actuator High - Control	12	0.75	YE	7301	II	-

X175 Engine Harness to Transmission Harness (M5U)





Connector Part Information

Harness Type: Engine

OEM Connector: 15504573

Service Connector: 19329922

Description: 36-Way F 1.2 MCON CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission

OEM Connector: 2138338-5

Service Connector: Service by Harness — See Part Catalog

Description: 36-Way M (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19329831	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	19119772	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
IV	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

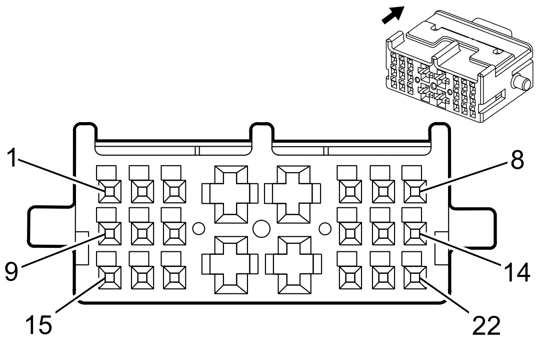
X175 Engine Harness to Transmission Harness (M5U)

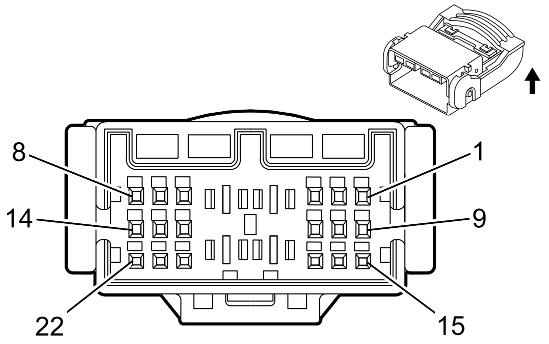
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-GN/WH	6380	I	-	TCC On/Off Solenoid A Control	1	0.5	L-GN/WH	6380	III	-
2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-
3	0.5	YE/BN	6404	I	-	Clutch E Control	3	0.5	YE/BN	6404	III	-

4	0.5	GY/L-GN	6403	I	-	Clutch D Control	4	0.5	GY/L-GN	6403	III	-
5	0.5	BN	6400	I	-	Clutch A Control	5	0.5	BN	6400	III	-
6	0.5	D-BU	6401	I	-	Clutch B Control	6	0.5	D-BU	6401	III	-
7	0.5	YE/BN	6210	I	-	TCC On/Off Solenoid B Control	7	0.5	YE/BN	6210	III	-
8-9	-	-	-	-	-	Not Occupied	8-9	-	-	-	-	-
10	0.5	GY	6402	I	-	Clutch C Control	10	0.5	GY	6402	III	-
11	0.5	BK/BN	586	I	-	Transmission Oil Temperature Sensor Low Reference	11	0.5	BK/BN	586	III	-
12	0.5	BN/WH	585	I	-	Transmission Oil Temperature Sensor Signal	12	0.5	BN/WH	585	III	-
13	0.5	WH	4508	I	-	Transmission Clutch G Control	13	0.5	WH	4508	III	-
14	0.5	WH/D-BU	4507	I	-	Transmission Clutch H Control	14	0.5	WH/D-BU	4507	III	-
15-17	-	-	-	-	-	Not Occupied	15-17	-	-	-	-	-
18	0.75	L-GN/GY	6387	II	-	Transmission High Side Driver #1 Signal Driver	18	0.75	L-GN/GY	6387	IV	-
19	0.75	GY/BN	6388	II	-	Transmission High Side Driver #2 Signal	19	0.75	GY/BN	6388	IV	-
20	-	-	-	-	-	Not Occupied	20	-	-	-	-	-
21	0.5	WH/BK	5983	I	-	PRNDL C Signal	21	0.5	WH/BK	5983	III	-
22	0.5	VT/WH	5981	I	-	PRNDL A Signal	22	0.5	VT/WH	5981	III	-
23	0.5	GY/WH	4168	I	-	PRNDL P Signal	23	0.5	GY/WH	4168	III	-
24	0.5	GY/D-BU	6358	I	-	Output Speed Signal	24	0.5	GY/D-BU	6358	III	-
25	0.5	YE/L-GN	4170	I	-	Transmission Sensor B Voltage Reference 9V	25	0.5	YE/L-GN	4170	III	-
26	0.5	L-GN/YE	6353	I	-	Input Speed Signal	26	0.5	L-GN/YE	6353	III	-
27	0.5	YE/D-BU	4171	I	-	Transmission Sensor A Voltage Reference 9V	27	0.5	YE/D-BU	4171	III	-
28	0.5	GY/BN	5982	I	-	PRNDL B Signal	28	0.5	GY/BN	5982	III	-
29	0.5	YE/D-BU	4171	I	-	Transmission Sensor A Voltage Reference 9V	29	0.5	YE/D-BU	4171	III	-
30	0.5	BK/GY	3927	I	-	IMS Mode Switch Return	30	0.5	BK/GY	3927	III	-
31	0.5	YE/L-GN	4170	I	-	Transmission Sensor B	31	0.5	YE/L-GN	4170	III	-

						Voltage Reference 9V						
32	0.5	L-GN/VT	4510	I	-	Transmission Intermediate Speed Signal	32	0.5	L-GN/VT	4510	III	-
33	-	-	-	-	-	Not Occupied	33	-	-	-	-	-
34	0.5	GY/YE	4169	I	-	PRNDL S Signal	34	0.5	GY/YE	4169	III	-
35	0.5	WH/GY	1786	I	-	Transmission Park/Neutral Signal (1)	35	0.5	WH/GY	1786	III	-
36	-	-	-	-	-	Not Occupied	36	-	-	-	-	-

X176 Transmission Harness to Transmission Harness (M5U)





Connector Part Information

Harness Type: Transmission Case

OEM Connector: 1897543–1

Service Connector: Service by Harness — See Part Catalog

Description: 22–Way F 0.64 Micro Quadlock Series, 2.8 MCP Series (NA)

Connector Part Information

Harness Type: Transmission Control

OEM Connector: 1897540–1

Service Connector: Service by Harness — See Part Catalog

Description: 22–Way M 0.64 Micro Quadlock Series, 2.8 MCP Series (NA)

Terminal Part Information

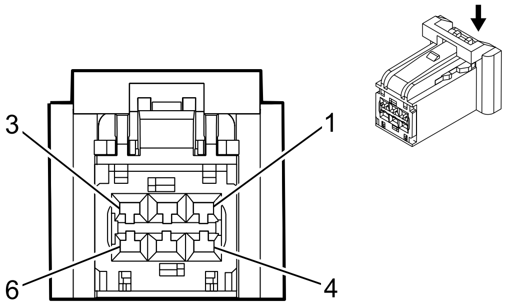
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-35 (VT)	J-38125-557	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-65B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

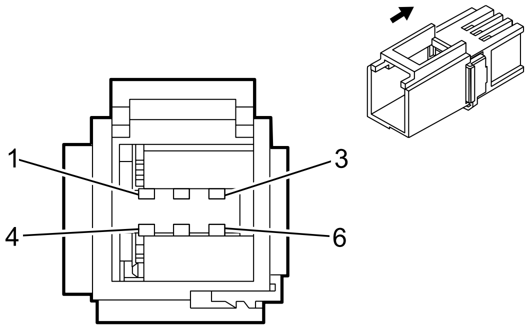
X176 Transmission Harness to Transmission Harness (M5U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/WH	6380	I	-	TCC On/Off Solenoid A Control	1	0.5	GN/WH	6380	III	-
2	0.5	VT/WH	5981	I	-	PRNDL A Signal	2	0.5	VT/WH	5981	III	-

3	0.5	GY/BN	5982	I	-	PRNDL B Signal	3	0.5	GY/BN	5982	III	-
4	2.5	GN/GY	6387	II	-	Transmission High Side Driver 1 Signal Driver	4	2.5	GN/GY	6387	IV	-
5	0.5	YE/BU	4171	II	-	Transmission Position Sensor A 9 Volt Reference	5	0.5	YE/BU	4171	IV	-
6	0.5	GY/YE	4169	I	-	PRNDL S Signal	6	0.5	GY/YE	4169	III	-
7	0.5	WH/BU	4507	I	-	Transmission Clutch H Control	7	0.5	WH/BU	4507	III	-
8	0.5	GY/GN	6403	I	-	Clutch D Control	8	0.5	GY/GN	6403	III	-
9	0.5	WH	4508	I	-	Transmission Clutch G Control	9	0.5	WH	4508	III	-
10	0.5	YE/BN	6210	I	-	TCC On/Off Solenoid B Control	10	0.5	YE/BN	6210	III	-
11	0.5	WH/BK	5983	I	-	PRNDL C Signal	11	0.5	WH/BK	5983	III	-
12	0.5	WH/GY	1786	I	-	Transmission Park/Neutral Signal (1)	12	0.5	WH/GY	1786	III	-
13	0.5	GY	6402	I	-	Clutch C Control	13	0.5	GY	6402	III	-
14	0.5	YE/BN	6404	I	-	Clutch E Control	14	0.5	YE/BN	6404	III	-
15	0.5	BN/WH	585	I	-	Transmission Oil Temperature Sensor Signal	15	0.5	BK/BN	585	III	-
16	0.5	BK/BN	586	I	-	Transmission Oil Temperature Sensor Low Reference	16	0.5	BK/BN	586	III	-
17	0.5	GY/WH	4168	I	-	PRNDL P Signal	17	0.5	GY/WH	4168	III	-
18	2.5	GY/BN	6388	II	-	Transmission High Side Driver 2 Signal	18	2.5	GY/BN	6388	IV	-
19	0.5	YE/GN	4170	II	-	Transmission Position Sensor B 9 Volt Reference	19	0.5	YE/GN	4170	IV	-
20	0.5	BK/GY	3927	I	-	IMS Mode Switch Low Reference	20	0.5	BK/GY	3927	III	-
21	0.5	BN	6400	I	-	Clutch A Control	21	0.5	BN	6400	III	-
22	0.5	BU	6401	I	-	Clutch B Control	22	0.5	BU	6401	III	-

X177 Transmission Harness to Transmission Harness (M5U)





Connector Part Information

Harness Type: Transmission Case

OEM Connector: 13960975

Service Connector: Service by Harness — See Part Catalog

Description: 6–Way M OCS 1.2 (WH)

Connector Part Information

Harness Type: Transmission Speed Sensor

OEM Connector: 13955963

Service Connector: Service by Component — See Part Catalog

Description: 6–Way M 0.64 II (WH)

Terminal Part Information

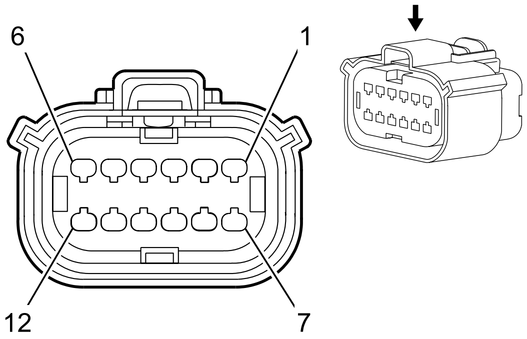
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-65B (L-BU)	J-38125-553	Not Available	Not Available	Not Available	Not Available

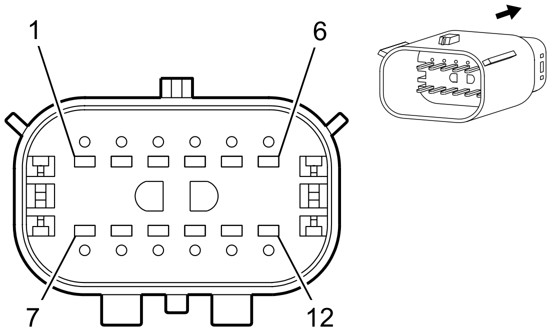
X177 Transmission Harness to Transmission Harness (M5U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/BU	6358	I	-	Output Speed Signal	1	0.5	YE	6358	II	-
2	0.5	YE/GN	4170	I	-	Transmission Position Sensor B 9 Volt Reference	2	0.5	RD	4170	II	-
3	0.5	YE/GN	4170	I	-	Transmission Position Sensor B 9 Volt Reference	3	0.5	WH	4170	II	-

4	0.5	YE/BU	4171	I	-	Transmission Position Sensor A 9 Volt Reference	4	0.5	WH	4171	II	-
5	0.5	GN/YE	6353	I	-	Input Speed Signal	5	0.5	GN	6353	II	-
6	0.5	GN/VT	4510	I	-	Transmission Intermediate Speed Signal	6	0.5	BK	4510	II	-

X182 Chassis Harness to Power Steering Jumper Harness





Connector Part Information

Harness Type: Chassis

OEM Connector: 13609715

Service Connector: 19178148

Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Power Steering Jumper

OEM Connector: 28287535

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

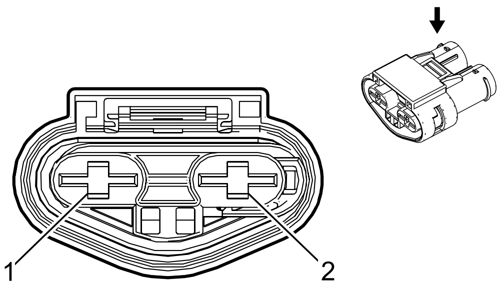
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575809	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

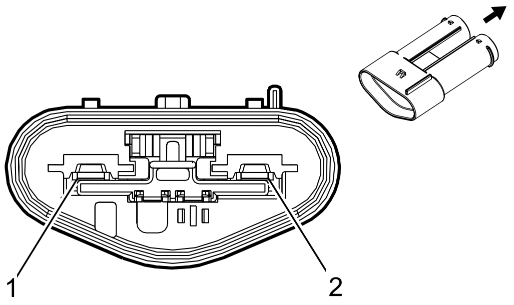
X182 Chassis Harness to Power Steering Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	0.5	WH	2501	I	-	High Speed GMLAN Serial Data (-) (1)	2	0.5	L-GN/BU	2501	II	-
3	0.5	D-BU	2500	I	-	High Speed GMLAN Serial Data (+) (1)	3	0.5	BK	2500	II	-
4	0.5	WH	6106	I	-	High Speed GMLAN Serial Data (-) (2)	4	0.5	YE/L-GN	6106	II	-

5	0.5	D-BU/YE	6105	I	-	High Speed GMLAN Serial Data (+) (2)	5	0.5	BK/OG	6105	II	-
6-7	-	-	-	-	-	Not Occupied	6-7	-	-	-	-	-
8	0.5	WH/D-BU	5986	I	-	Serial Data Communication Enable	8	0.5	GY	5986	II	-
9	0.5	WH	2501	I	-	High Speed GMLAN Serial Data (-) (1)	9	0.5	BK/L-GN	2501	II	-
10	0.5	D-BU	2500	I	-	High Speed GMLAN Serial Data (+) (1)	10	0.5	WH/BN	2500	II	-
11	0.5	WH	6106	I	-	High Speed GMLAN Serial Data (-) (2)	11	0.5	VT	6106	II	-
12	0.5	D-BU/YE	6105	I	-	High Speed GMLAN Serial Data (+) (2)	12	0.5	BN/YE	6105	II	-

X183 Battery Cable Jumper to Power Steering Jumper Harness





Connector Part Information

Harness Type: Battery Cable Jumper

OEM Connector: 13582139

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Sealed (BK)

Connector Part Information

Harness Type: Power Steering Jumper

OEM Connector: 28287534

Service Connector: Service by Harness – See Part Catalog

Description: 2-Way M (BK)

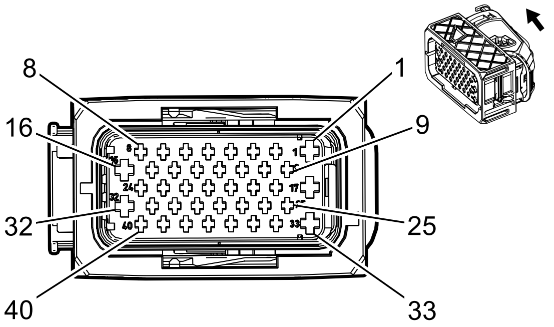
Terminal Part Information

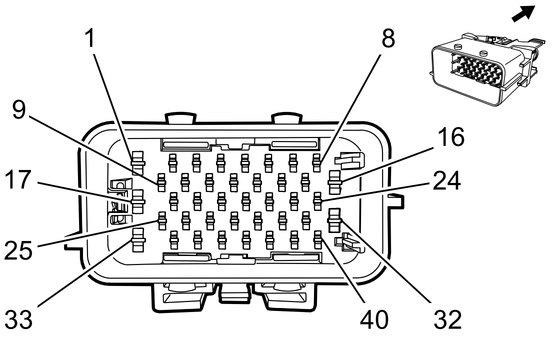
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Required	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Required	Not Available	Not Available	Not Available	Not Available	Not Available

X183 Battery Cable Jumper to Power Steering Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	20	RD	842	I	-	Battery Positive Voltage	1	20	RD	842	I	-
2	20	BK	350	I	-	Ground	2	20	BK	350	II	-

X185 Chassis Harness to Body Harness





Connector Part Information

Harness Type: Chassis

OEM Connector: 13965186

Service Connector: 19301818

Description: 40-Way F 1.5 DSQ, 2.8 ATS Series, Sealed

Connector Part Information

Harness Type: Body

OEM Connector: 13603208

Service Connector: 13576551

Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

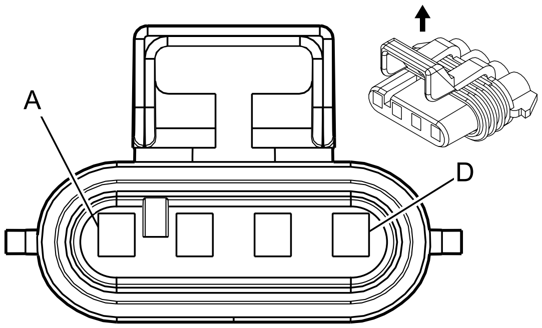
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19301764	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13588058	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13580829	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	13584470	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
V	13580830	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VI	13584548	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VII	13327190	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VIII	13327188	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IX	13578881	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
X	13575356	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

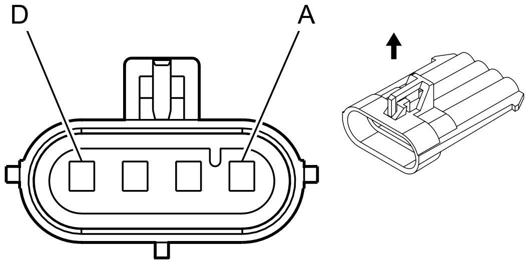
X185 Chassis Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-GN/BK	7633	I	JL1	Integrated Trailer Brake Controller User Gain Signal	1	0.5	L-GN/BK	7633	VI	JL1
2	0.5	L-GN/BN	2087	II	-	Combined Vehicle Inertial Sensor Supply Voltage	2	0.35	L-GN/BN	2087	VIII	-
3	0.5	YE	7635	II	JL1	Integrated Trailer Brake Controller Manual Apply Signal	3	0.5	YE	7635	VII	JL1
4	0.5	D-BU/RD	7632	II	JL1	Integrated Trailer Brake Controller Switch 5 Volt Reference	4	0.5	D-BU/RD	7632	VII	JL1
5	0.5	BN	7634	II	JL1	Integrated Trailer Brake Contoller Redundant Manual Apply Signal	5	0.5	BN	7634	VII	JL1
6	0.5	BK/BN	7631	II	JL1	Integrated Trailer Brake Controller Switch Low Reference	6	0.5	BK/BN	7631	VII	JL1
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-
8	0.5	L-GN	5060	II	-	Low Speed GMLAN Serial Data	8	0.5	L-GN	5060	VII	-
9	0.5	GY/RD	7684	II	J71	Park Brake Apply Switch Voltage Reference	9	0.5	GY/RD	7684	VII	J71
10	0.5	BN	6107	II	J71	Park Brake Apply Switch Signal	10	0.35	BN	6107	VIII	J71
11	0.5	YE	2375	II	-	Left Rear Corner Object Sensor Signal	11	0.5	YE	2375	VII	-
12	0.5	D-BU/BK	6108	II	J71	Park Brake Release Switch Signal	12	0.5	D-BU/BK	6108	VII	J71
13	0.5	YE/RD	7683	II	J71	Park Brake Release Switch Voltage Reference	13	0.5	YE/RD	7683	VII	J71
14	0.5	YE/WH	2377	II	J71	Park Brake Switch Supply Voltage	14	0.5	YE	1492	VII	J71
15	0.5	BK/BN	6045	II	UGN	Steering Angle Sensor Low Reference	15	0.35	BK/BN	6045	VIII	UGN
16	-	-	-	-	-	Not Occupied	16	-	-	-	-	-
17	0.5	WH/D-BU	5986	I	-	Serial Data Communication Enable	17	0.5	WH/D-BU	5986	VI	-
18	0.5	D-BU	2500	II	-	High Speed GMLAN Serial Data (+) (1)	18	0.5	D-BU	2500	VII	-

						Serial Data (+) (1)						
19	0.5	WH	2501	II	-	High Speed GMLAN Serial Data (-) (1)	19	0.5	WH	2501	VII	-
20	0.5	VT/YE	5985	II	-	Accessory Wakeup Serial Data	20	0.5	VT/YE	5985	VII	-
21–23	-	-	-	-	-	Not Occupied	21–23	-	-	-	-	-
24	0.75	BN/YE	294	II	N08	Door Lock Actuator Unlock Control	24	0.75	BN/YE	294	X	N08
25	0.75	GY	5911	II	N08	Door Lock Actuator Lock Control 2	25	0.75	GY	5911	VII	N08
26-28	-	-	-	-	-	Not Occupied	26-28	-	-	-	-	-
29	0.5	BK	2550	II	-	Ground	29	0.75	BK	2550	VII	-
30–32	-	-	-	-	-	Not Occupied	30–32	-	-	-	-	-
33	2.5	RD/D-BU	1842	III	Z85 or Z95	Battery Positive Voltage	33	2.5	RD/D-BU	1842	IX	Z85 or Z95
34	0.5	GY/L-GN	5996	II	BRS	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	34	0.5	GY/L-GN	5996	VII	BRS
35–38	-	-	-	-	-	Not Occupied	35–38	-	-	-	-	-
39	0.5	BN/WH	7462	II	-	Running Boards Disable Signal	39	0.35	D-BU/YE	6844	VIII	-
40	0.5	L-GN/GY	817	II	-	Vehicle Speed Signal	40	0.5	L-GN/GY	817	VII	-

X195 Body Harness to Underhood Harness (5W4 or 9C1)





Connector Part Information

Harness Type: Body

OEM Connector: 12162144

Service Connector: 13582063

Description: 4-Way F 150 Metri Pack Series, Sealed (BK)

Connector Part Information

Harness Type: Underhood

OEM Connector: 12162102

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 150 Metri Pack Series, Sealed Self Lock (BK)

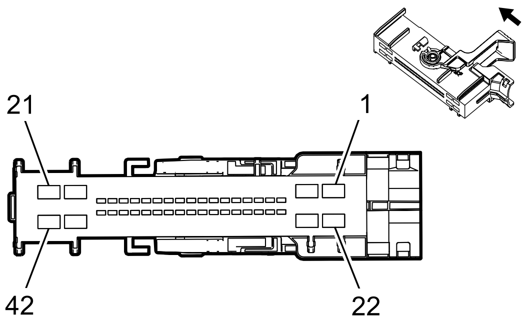
Terminal Part Information

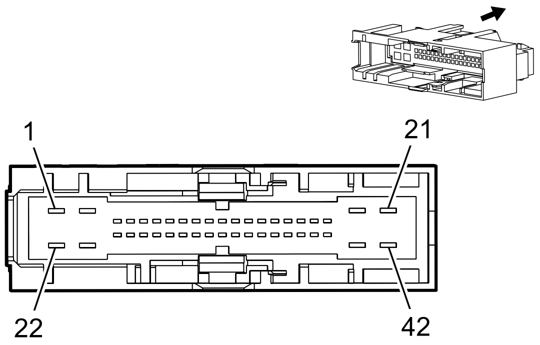
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X195 Body Harness to Underhood Harness (5W4 or 9C1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	D-BU/L-GN	6837	I	-	Siren #1 Supply	A	0.75	D-BU/L-GN	6837	II	-
B	0.75	L-GN/YE	6836	I	-	Siren #2 Supply	B	0.75	L-GN/YE	6836	II	-
C	0.75	GY/VT	6838	I	-	Front Emergency Flasher Control	C	0.75	GY/VT	6838	II	-
D	0.75	YE/L-GN	6835	I	-	Front Emergency Lamp Supply Voltage	D	0.75	YE/L-GN	6835	II	-

X201 Steering Column Harness to Instrument Panel Harness





Connector Part Information

- Harness Type: Steering Column
- OEM Connector: 15509841
- Service Connector: Service by Harness - See Part Catalog
- Description: 42-Way F 1.2, 2.8 Series (GY)

Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13898445
- Service Connector: 13586232
- Description: 42-Way M 0.64, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64A (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
III	19301763	J-35616-65B (L-BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
IV	19329832	J-35616-65B (L-BU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
V	19301762	J-35616-65B (L-BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VI	13575824	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VII	13575823	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VIII	13575821	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

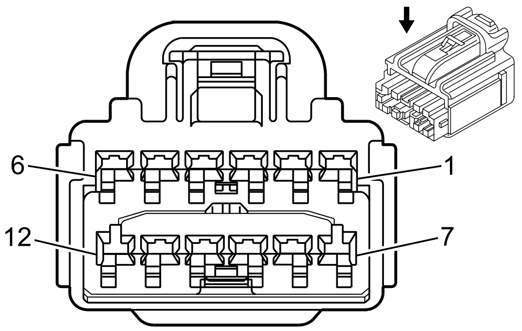
X201 Steering Column Harness to Instrument Panel Harness

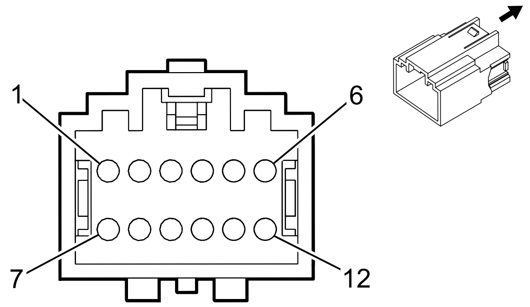
Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	1.5	RD/VT	4640	I	N38	Battery Positive Voltage	1	1.5	RD/VT	4640	III	N38
2	1.5	BK	1850	I	N38	Ground	2	1.5	BK	1850	III	N38
3	0.35	VT/BK	3	II	BTM	Run/Crank Ignition 1 Voltage	3	0.35	VT/BK	3	V	BTM
4	0.5	RD/D-BU	540	II	-	Battery Positive Voltage	4	0.5	RD/D-BU	540	III	-
5	0.35	BN/D-BU	391	II	BTM	Rear Window Wiper Switch Signal	5	0.35	BN/D-BU	391	V	BTM
6	0.35	L-GN/GY	3277	II	BTM	Vehicle Anti-Theft System Immobilizer Return	6	0.35	L-GN/GY	3277	V	BTM
7	0.35	L-GN/VT	7533	II	-	Linear Interconnect Network Bus 11	7	0.35	L-GN/VT	7533	V	-
8	0.35	GY/BK	3276	II	BTM	Vehicle Anti-Theft System Immobilizer Supply Voltage	8	0.35	GY/BK	3276	V	BTM
9	0.35	L-GN/BN	2087	II	-	Combined Vehicle Inertial Sensor Supply Voltage	9	0.35	L-GN/BN	2087	V	-
10	0.5	D-BU/YE	6105	II	-	High Speed GMLAN Serial Data (+) (2)	10	0.5	D-BU/YE	6105	IV	-
11	0.5	D-BU/YE	6105	II	-	High Speed GMLAN Serial Data (+) (2)	11	0.5	D-BU/YE	6105	III	-
12	0.35	L-GN	5060	II	BTM	Low Speed GMLAN Serial Data	12	0.35	L-GN	5060	V	BTM
13	-	-	-	-	-	Not Occupied	13	-	-	-	-	-
14	0.5	L-GN/WH	7530	II	N38	Linear Interconnect Network Bus 8	14	0.5	L-GN/WH	7530	IV	N38
15	-	-	-	-	-	Not Occupied	15	-	-	-	-	-
16	0.35	L-GN/WH	111	II	-	Hazard Switch Signal	16	0.35	L-GN/WH	111	V	-
17	0.5	YE/WH	816	II	-	Brake Transmission Shift Interlock Solenoid Control	17	0.5	YE/WH	816	III	-
18	-	-	-	-	-	Not Occupied	18	-	-	-	-	-
19	0.35	L-GN/VT	1601	II	BTM	Steering Column Lock Signal	19	0.35	L-GN/VT	1601	V	BTM
20	1.5	BK	1050	I	-	Ground	20	1.5	BK	1050	VI	-
21	0.75	RD/GY	4140	I	BTM	Battery Positive Voltage	21	0.75	RD/GY	4140	VII	BTM
22	-	-	-	-	-	Not Occupied	22	-	-	-	-	-
23	0.75	D-BU/VT	807	I	BTM	OFF /Accessory Voltage	23	0.75	D-BU/VT	807	VII	BTM

						Voltage						
24	0.35	VT/YE	4	II	BTM	Accessory Voltage	24	0.35	VT/YE	4	V	BTM
25	0.35	RD/YE	3040	II	-	Battery Positive Voltage	25	0.35	RD/YE	3040	V	-
26-29	-	-	-	-	-	Not Occupied	26-29	-	-	-	-	-
30	0.5	L-GN/WH	7527	II	X88 or Z88 with KA1 or KB6	Linear Interconnect Network Bus 5	30	0.5	L-GN/WH	7527	III	X88 or Z88 with KA1 or KB6
31	0.5	WH	6106	II	-	High Speed GMLAN Serial Data (-) (2)	31	0.5	WH	6106	IV	-
32	0.5	WH	6106	II	-	High Speed GMLAN Serial Data (-) (2)	32	0.5	WH	6106	III	-
33	0.5	L-GN/BK	3894	II	UDD, UHS or UDV	Linear Interconnect Network Bus 12	33	0.5	L-GN/BK	3894	III	UDD, UHS or UDV
34-37	-	-	-	-	-	Not Occupied	34-37	-	-	-	-	-
38	0.35	BN	6136	II	-	Supply Voltage	38	0.35	BN	6136	V	-
39	0.35	GY/WH	5904	II	-	Steering Column Lock Status Signal	39	0.35	D-BU/VT	5904	V	-
40	0.35	WH/VT	1932	II	-	Shift Select Switch Park Signal	40	0.35	L-GN/WH	1932	V	-
41	0.5	VT/WH	1139	I	UVD	Run/Crank Ignition 1 Voltage	41	0.5	VT/WH	1139	VIII	UVD
42	0.5	BK/WH	1851	I	-	Signal Ground	42	0.5	BK/WH	1851	VIII	-

X203 Headliner Harness to Instrument Panel Harness





Connector Part Information

Harness Type: Headliner

OEM Connector: 13507762

Service Connector: 89046712

Description: 12-Way F YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13507705

Service Connector: 88988266

Description: 12-Way M 1.5 Series (L-GY)

Terminal Part Information

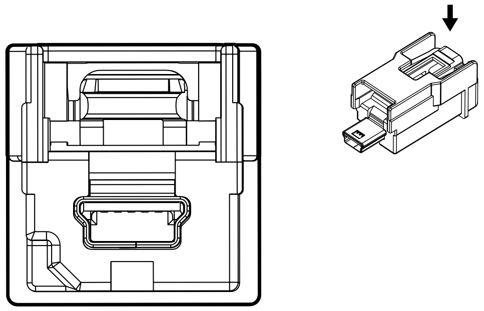
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575850	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575809	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13575481	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	13575816	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
V	19301755	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VI	19300435	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

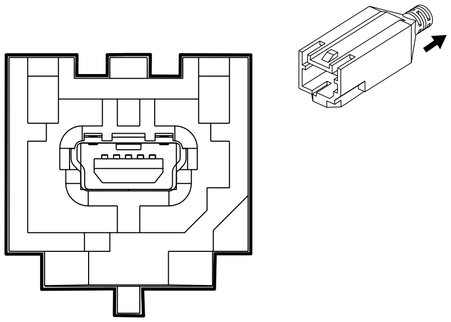
X203 Headliner Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	2550	I	U42	Ground	1	0.35	BK	2550	IV	U42

2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-
3	0.35	BK/BN	654	II	-	Cellular Telephone Microphone Low Reference	3	0.35	BK/BN	654	IV	-
4	0.35	D-BU	655	II	-	Cellular Telephone Microphone Signal	4	0.35	D-BU	655	IV	-
5	0.5	RD/L-GN	1540	I	U42	Battery Positive Voltage	5	0.5	RD/L-GN	1540	VI	U42
6	0.5	WH/D-BU	5986	II	UFL, without UGN with Z75	Serial Data Communication Enable	6	0.5	WH/D-BU	5986	VI	UFL, without UGN with Z75
7	0.35	L-GN/YE	7531	III	AZ3	Linear Interconnect Network Bus 9	7	0.35	L-GN/YE	7531	V	AZ3
8	0.5	D-BU	2500	II	UFL, without UGN with Z75	High Speed GMLAN Serial Data (+) (1)	8	0.5	D-BU	2500	VI	UFL, without UGN with Z75
9	0.5	WH	2501	II	UFL, without UGN with Z75	High Speed GMLAN Serial Data (-) (1)	9	0.5	WH	2501	VI	UFL, without UGN with Z75
10	0.35	L-GN/YE	7066	I	U42	Entertainment Remote Enable Signal	10	0.35	L-GN/YE	7066	V	U42
11-12	-	-	-	-	-	Not Occupied	11-12	-	-	-	-	-

X204 Instrument Panel Harness LVDS to Headliner Harness LVDS (U42 without DNU)





Connector Part Information

Harness Type: Headliner LVDS

OEM Connector: 13927848

Service Connector: Service by Harness — See Part Catalog

Description: 5–Way F USB Type

Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13933708

Service Connector: Service by Harness — See Part Catalog

Description: 5–Way M USB Type

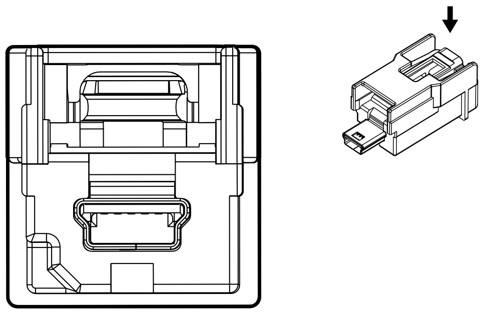
Terminal Part Information

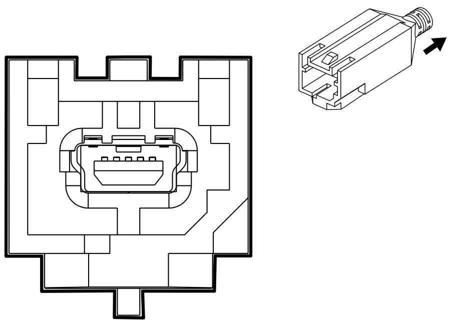
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X204 Instrument Panel Harness LVDS to Headliner Harness LVDS (U42 without DNU)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	LVDS	—	I	—	Video Display Signal	—	—	LVDS	—	I	—

X204 Instrument Panel Harness LVDS to Headliner Harness LVDS (U42 with DNU)





Connector Part Information

Harness Type: Headliner LVDS

OEM Connector: 13927855

Service Connector: Service by Harness — See Part Catalog

Description: 5–Way F USB Type (WH)

Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: 13933708

Service Connector: Service by Harness — See Part Catalog

Description: 5–Way M USB Type

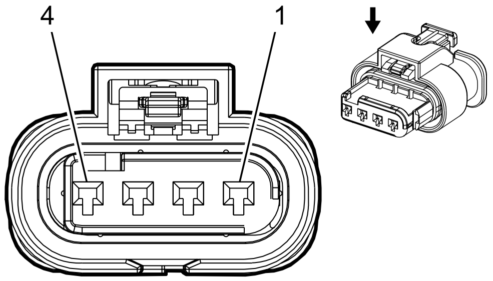
Terminal Part Information

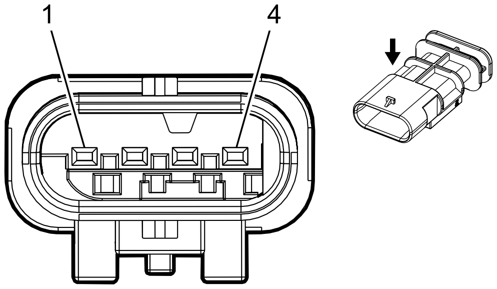
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X204 Instrument Panel Harness LVDS to Headliner Harness LVDS (U42 with DNU)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	LVDS	—	I	—	Video Display Signal	—	—	LVDS	—	I	—

X205 Instrument Panel Harness to Passenger Air Bag Jumper Harness





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13854531

Service Connector: 13586137

Description: 4-Way F 1.2 Series, Sealed (YE)

Connector Part Information

Harness Type: Passenger Air Bag Jumper

OEM Connector: 13580146

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 Series, Sealed (YE)

Terminal Part Information

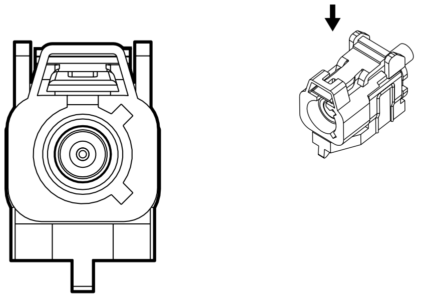
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

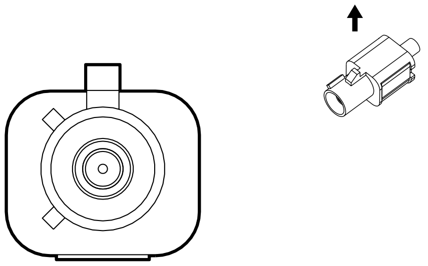
X205 Instrument Panel Harness to Passenger Air Bag Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE/OG	3025	I	-	Passenger IP Module Stage 1 High Control	1	0.35	YE	3025	II	-
2	0.35	OG/WH	3024	I	-	Passenger IP Module Stage 1 Low Control	2	0.35	OG	3024	II	-
3	0.35	GY/OG	3027	I	-	Passenger IP Module Stage 2 High Control	3	0.35	GY	3027	II	-
4	0.35	OG/VT	3026	I	-	Passenger IP Module	4	0.35	PU	3026	II	-

						Stage 2 Low Control						

X212 GPS Antenna Jumper COAX to Instrument Panel Harness COAX (CV3 with UE1)





Connector Part Information

Harness Type: GPS Antenna Jumper COAX

OEM Connector: 13581970

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type (BN)

Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 13581965

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type (BN)

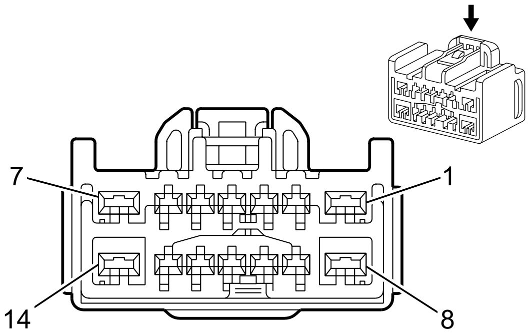
Terminal Part Information

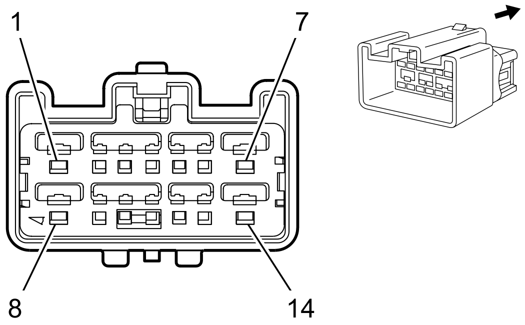
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X212 GPS Antenna Jumper COAX to Instrument Panel Harness COAX (CV3 with UE1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	COAX	—	I	—	Coaxial Antenna GPS Signal	—	—	COAX	—	I	—

X215 HVAC Harness to Instrument Panel Harness





Connector Part Information

Harness Type: HVAC

OEM Connector: 88988260

Service Connector: 88956524

Description: 14-Way F Hybrid Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10846900

Service Connector: 88956523

Description: 14-Way M Hybrid Series (L-GY)

Terminal Part Information

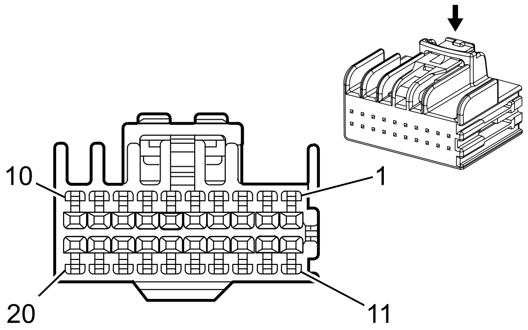
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13575816	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

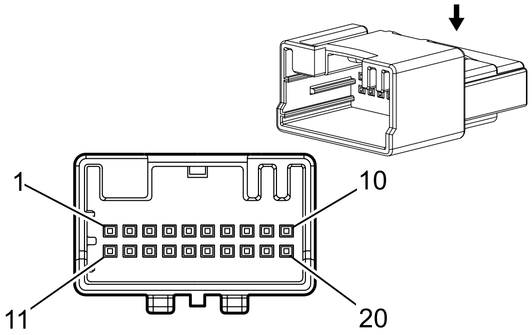
X215 HVAC Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	0.35	L-GN	5060	I	-	Low Speed GMLAN Serial Data	2	0.35	L-GN	5060	II	-
3	0.35	L-GN/YE	7531	I	-	Linear Interconnect Network Bus 9	3	0.35	L-GN/YE	7531	II	-
4	0.5	RD/VT	3340	I	-	Battery Positive Voltage	4	0.5	RD/VT	3340	II	-

5	0.5	VT/GY	539	I	-	Run/Crank Ignition 1 Voltage	5	0.5	VT/GY	539	II	-
6-8	-	-	-	-	-	Not Occupied	6-8	-	-	-	-	-
9	0.35	BK/WH	1851	I	-	Signal Ground	9	0.35	BK/WH	1851	II	-
10	0.35	BK/YE	1791	I	-	Air Temperature Door Control Low Reference	10	0.35	BK/YE	1791	II	-
11	0.35	D-BU/WH	734	I	-	Inside Air Temperature Sensor Signal	11	0.35	D-BU/WH	734	II	-
12	0.35	GY	590	I	-	Solar Sensor Driver Signal	12	0.35	GY	590	II	-
13	0.35	YE/VT	1783	I	-	Twilight Sentinel Delay Signal	13	0.35	YE/VT	1783	II	-
14	-	-	-	-	-	Not Occupied	14	-	-	-	-	-

X216 Body Harness to HVAC Harness





Connector Part Information

Harness Type: Body

OEM Connector: 13899026

Service Connector: 13580903

Description: 20-Way F 0.64 YESC Series (L-GY)

Connector Part Information

Harness Type: HVAC

OEM Connector: 13534928

Service Connector: 88988270

Description: 20-Way M 0.64 Series (GY)

Terminal Part Information

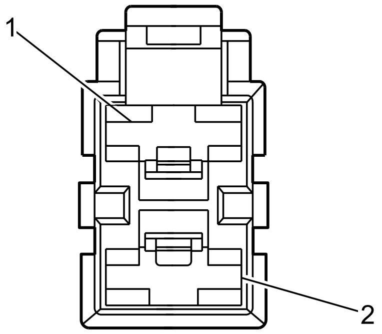
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575847	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575838	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

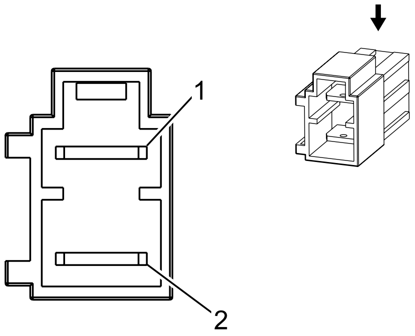
X216 Body Harness to HVAC Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1-5	-	-	-	-	-	Not Occupied	1-5	-	-	-	-	-
6	0.5	D-BU/YE	7574	II	-	Electric Variable Displacement Control	6	0.5	D-BU/YE	7574	III	-
7	0.5	D-BU/BN	7573	II	-	Electric Variable Displacement Supply	7	0.5	D-BU/BN	7573	III	-

8	0.35	BK/YE	407	I	-	Sensor Low Reference	8	0.35	BK/YE	407	III	-
9	0.35	BN/BK	405	I	-	Lower Air Temperature Sensor Signal	9	0.35	BN/BK	405	III	-
10	0.35	BN	404	I	-	Upper Air Temperature Sensor Signal	10	0.35	BN	404	III	-
11	-	-	-	-	-	Not Occupied	11	-	-	-	-	-
12	0.35	L-GN/BK	2211	I	-	Rear Blower Motor Speed Control	12	0.35	L-GN/BK	2211	III	-
13	0.5	BN/VT	193	II	-	Rear Defog Relay Control	13	0.5	BN/VT	193	III	-
14	0.35	GY/RD	598	I	-	5 Volt Reference	14	0.35	GY/RD	598	III	-
15	0.35	GY/D-BU	2145	I	-	Passenger Air Temperature Switch Signal	15	0.35	GY/D-BU	2145	III	-
16	0.35	GY	2614	I	-	Rear Air Temperature Door Control	16	0.35	GY	2614	III	-
17	0.35	WH/BN	2775	I	-	Rear Air Temperature Motor Control	17	0.35	WH/BN	2775	III	-
18	0.35	GY	2599	I	-	Rear Mode Motor Signal	18	0.35	GY	2599	III	-
19	0.35	BK/L-GN	5730	I	-	Rear Mode Motor Low Reference	19	0.35	BK/L-GN	5730	III	-
20	0.35	L-GN/WH	5729	I	-	Rear Mode Motor Supply Voltage	20	0.35	L-GN/WH	5729	III	-

X217 Body Harness to HVAC Harness





Connector Part Information

Harness Type: Body

OEM Connector: 10721337

Service Connector: 88953301

Description: 2-Way F 375 Series (BK)

Connector Part Information

Harness Type: HVAC

OEM Connector: 13581073

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 375 Series (BK)

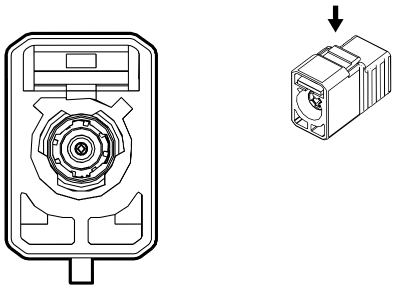
Terminal Part Information

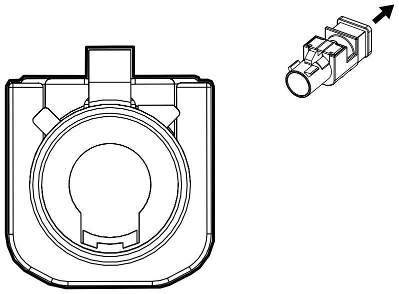
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X217 Body Harness to HVAC Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	4	RD/VT	542	I	-	Battery Positive Voltage	1	4	RD/VT	542	II	-
2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-

X221 Instrument Panel COAX to Headliner Harness COAX





Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 13581685

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way F Coax (BK)

Connector Part Information

Harness Type: Headliner COAX

OEM Connector: 13581673

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way M Coax (BK)

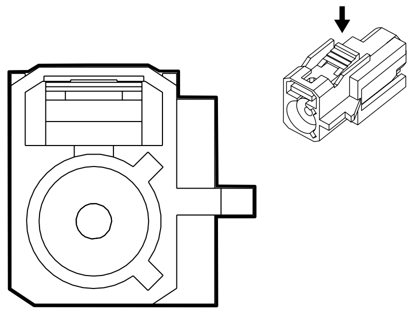
Terminal Part Information

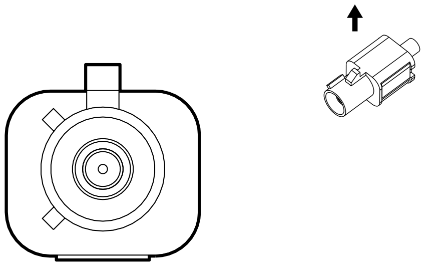
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X221 Instrument Panel COAX to Headliner Harness COAX

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	COAX	—	I	—	Antenna RF Signal	—	—	COAX	—	I	—

X222 Instrument Panel COAX to A-Pillar Harness COAX (IO6 with VV4 or CV3)





Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 13585498

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way F Coax (PU)

Connector Part Information

Harness Type: A-Pillar COAX

OEM Connector: 13585533

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way M Coax (PU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X222 Instrument Panel COAX to A-Pillar Harness COAX (IO6 with VV4 or CV3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	COAX	—	I	—	Coaxial Antenna Cell Phone Signal	—	—	COAX	—	I	—

X222 Instrument Panel COAX to A-Pillar Harness COAX (VV4 or CV3 without IO6)

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Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 13589366

Service Connector: Service by Cable — See Part Catalog

Description: 2-Way F Coax (PU)

Connector Part Information

Harness Type: A-Pillar COAX

OEM Connector: 13589365

Service Connector: Service by Cable — See Part Catalog

Description: 2-Way M Coax (PU)

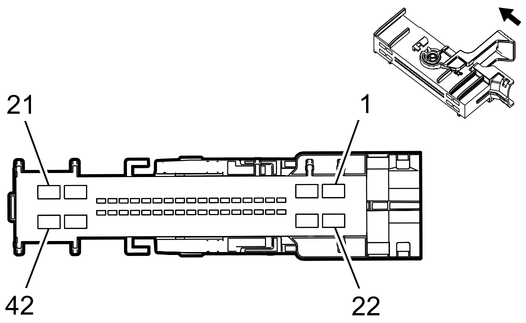
Terminal Part Information

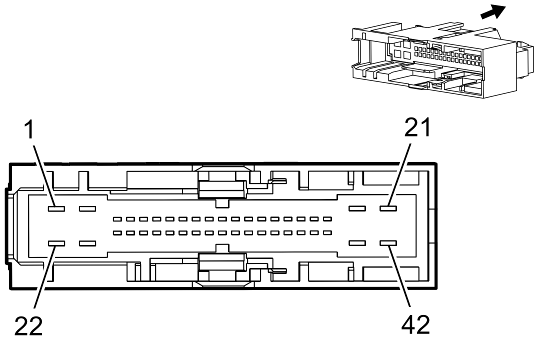
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X222 Instrument Panel COAX to A-Pillar Harness COAX (VV4 or CV3 without IO6)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	COAX	—	I	—	Coaxial Antenna Cell Signal	1	—	COAX	—	I	—
2	— —	COAX COAX	— —	I	VV4 CV3	Coaxial Antenna Cell/GPS Signal Coaxial Antenna GPS Signal	2	— —	COAX COAX	— —	I	VV4 CV3

X225 Body Harness to Instrument Panel Harness





Connector Part Information

Harness Type: Body

OEM Connector: 13898441

Service Connector: 19301820

Description: 42-Way F 1.2, 2.8 Series (GY)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13898444

Service Connector: 13586233

Description: 42-Way M 0.64, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13580025	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19300649	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	19329828	J-35616-5 (PU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
V	19301762	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VI	19301763	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VII	13575821	J-35616-5 (PU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VIII	13884550	J-35616-65B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

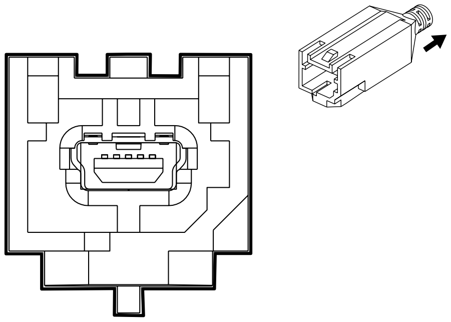
X225 Body Harness to Instrument Panel Harness

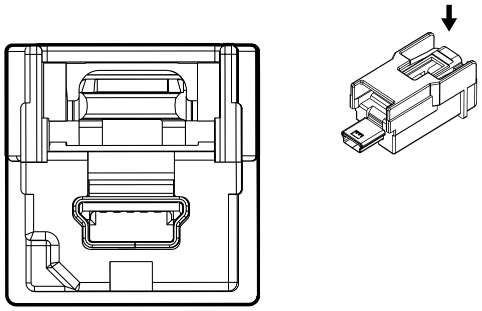
Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	0.75	YE/GY	1956	I	-	Left Front Tweeter Speaker (-)	1	0.75	YE/GY	1956	IV	-
2	1.5	BK	1850	III	-	Ground	2	0.75	BK	1850	IV	-
3	0.5	L-GN/WH	7530	II	-	Linear Interconnect Network Bus 8	3	0.5	L-GN/WH	7530	VI	-
4	0.5	WH/BN	6815	II	-	Inadvertent Power Control	4	0.5	WH/BN	6815	VI	-
5	0.35	GY/WH	3272	II	-	Remote Function Actuator Supply Voltage	5	0.35	GY/WH	3272	V	-
6	0.35	D-BU/WH	3275	II	-	Remote Function Actuator Receive Signal	6	0.35	D-BU/WH	3275	V	-
7	0.35	VT/YE	43	II	-	Accessory Voltage	7	0.35	VT/YE	43	V	-
8	0.5	GY/VT	3998	II	-	MOST Serial Data (+)	8	0.5	GY/VT	3998	VI	-
9	0.35	BN/BK	3552	II	-	Passive Start Interior Antenna 1 Signal Hi	9	0.35	BN/BK	3552	V	-
10	0.35	WH	3553	II	-	Passive Start Interior Antenna 1 Signal Lo	10	0.35	WH	3553	V	-
11	0.5	WH/L-GN	3997	II	-	MOST Serial Data (-)	11	0.5	WH/L-GN	3997	VI	-
12	0.5	BN/D-BU	118	II	-	Left Front Speaker Signal (-) (1)	12	0.5	BN/D-BU	118	VI	-
13	0.35	BK/GY	3559	II	-	Passive Start Switch 2 Low Reference	13	0.35	BK/GY	3559	V	-
14	0.5	L-GN	199	II	-	Left Rear Speaker (+)	14	0.5	L-GN	199	VI	-
15	0.5	D-BU/VT	3813	II	-	High Speed GMLAN Serial Data (+) (4)	15	0.5	D-BU/VT	3813	VI	-
16	0.5	WH	3811	II	-	High Speed GMLAN Serial Data (-) (4)	16	0.5	WH	3811	VI	-
17	0.35	VT/BK	3	II	-	Run/Crank Ignition 1 Voltage	17	0.35	VT/BK	3	V	-
18	0.35	VT/YE	4	II	-	Accessory Voltage	18	0.35	VT/YE	4	V	-
19	0.35	BK/D-BU	61	II	-	Outside Ambient Temperature Sensor Low Reference	19	0.35	BK/D-BU	61	V	-
20	0.75	BN/D-BU	118	III	-	Left Front Speaker Signal (-) (1)	20	0.75	BN/D-BU	118	IV	-
21	0.35	L-GN/BK	3558	III	-	Passive Start Switch Signal 2	21	0.35	L-GN/BK	3558	VII	-
22	0.75	YE/D-BU	1856	I	-	Left Front Tweeter Speaker (+)	22	0.75	YE/D-BU	1856	IV	-

						Speaker (+)					
23	0.35	L-GN	4512	III	-	Wireless Charging System Charge Indicator Control	23	0.35	L-GN	4512	IV	-
24	0.35	L-GN/WH	3438	II	-	Exhaust Brake Switch Signal	24	0.35	L-GN/WH	3438	V	-
25	0.35	BN/WH	419	II	-	Check Engine Indicator Control	25	0.35	BN/WH	419	V	-
26	0.35	YE/L-GN	3274	II	-	Remote Function Actuator Transmit Signal	26	0.35	YE/L-GN	3274	V	-
27	0.35	GY	3273	II	-	Remote Function Actuator Return	27	0.35	GY	3273	V	-
28	0.5	BK	1850	II	-	Ground	28	0.5	BK	1850	VIII	-
29	0.5	WH/L-GN	3997	II	-	MOST Serial Data (-)	29	0.5	WH/L-GN	3997	VI	-
30	0.35	D-BU/VT	1134	II	-	Park Brake Switch Signal	30	0.35	D-BU/VT	1134	V	-
31	0.35	GY/RD	7684	II	-	Park Brake Apply Switch Voltage Reference	31	0.35	GY/RD	7684	V	-
32	0.5	GY/VT	3998	II	-	MOST Serial Data (+)	32	0.5	GY/VT	3998	VI	-
33	0.5	D-BU	201	II	-	Left Front Speaker (+) (1)	33	0.5	D-BU	201	VI	-
34	0.35	BN	6107	II	-	Park Brake Apply Switch Signal	34	0.35	BN	6107	V	-
35	0.5	L-GN/BK	116	II	-	Left Rear Speaker Signal (-)	35	0.5	L-GN/BK	116	VI	-
36	0.35	D-BU/BK	6108	II	-	Park Brake Release Switch Signal	36	0.35	D-BU/BK	6108	V	-
37	0.35	YE/RD	7683	II	-	Park Brake Release Switch Voltage Reference	37	0.35	YE/RD	7683	V	-
38	0.35	L-GN/BN	2087	II	-	Combined Vehicle Inertial Sensor Supply Voltage	38	0.35	L-GN/BN	2087	V	-
39	0.35	YE	1492	II	-	Park Brake Switch Supply Voltage	39	0.35	YE	1492	V	-
40	0.5	L-GN/GY	6135	II	-	Linear Interconnect Network Bus 4	40	0.5	L-GN/GY	6135	VI	-
41	0.75	D-BU	201	III	-	Left Front Speaker (+) (1)	41	0.75	D-BU	201	IV	-
42	0.35	D-BU/YE	6844	III	-	ABS/TCS Hill Descent Control Switch Signal	42	0.35	D-BU/YE	6844	IV	-

X238 Body Harness USB to Instrument Panel Harness USB (AZ3)





Connector Part Information

Harness Type: Body USB

OEM Connector: 13584761

Service Connector: Service by Harness — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (GY)

Connector Part Information

Harness Type: Instrument Pane USB

OEM Connector: 13868840

Service Connector: Service by Harness — See Part Catalog

Description: 5-Way F 2.0 Mini B USB Type (GY)

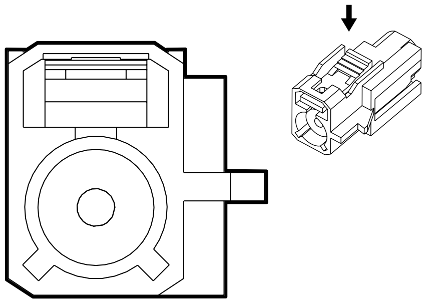
Terminal Part Information

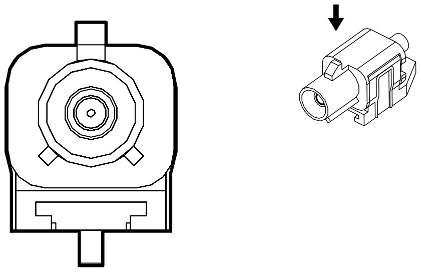
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X238 Body Harness USB to Instrument Panel Harness USB (AZ3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	USB	—	I	—	USB Serial Data	—	—	USB	—	I	—

X245 Instrument Panel Harness COAX to A-Pillar Harness COAX (U2M with UE1)





Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 13688678

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way F Coax (CU)

Connector Part Information

Harness Type: A-Pillar COAX

OEM Connector: 13688680

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way M Coax (CU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X245 Instrument Panel Harness COAX to A-Pillar Harness COAX (U2M with UE1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	COAX	—	I	—	Coaxial Antenna XM Signal	—	—	COAX	—	I	—

X245 Instrument Panel Harness COAX to A-Pillar Harness COAX (U2M without UE1)

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Connector Part Information

Harness Type: Instrument Panel COAX

OEM Connector: 13585486

Service Connector: Service by Cable — See Part Catalog

Description: 2-Way F Coax (BU)

Connector Part Information

Harness Type: A-Pillar COAX

OEM Connector: 13585493

Service Connector: Service by Cable — See Part Catalog

Description: 2-Way M Coax (BU)

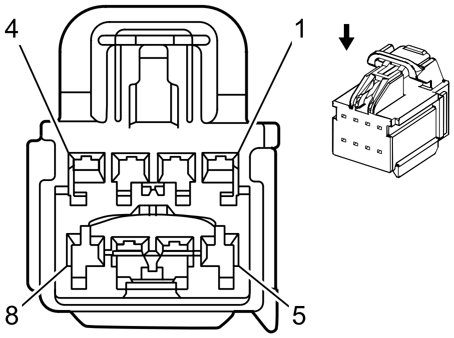
Terminal Part Information

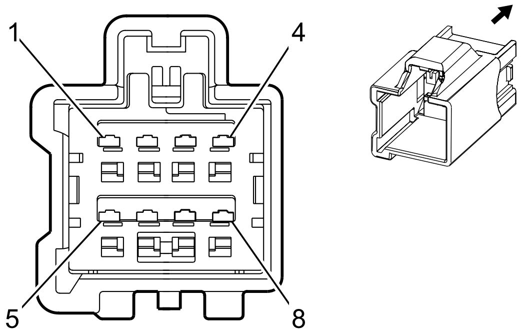
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X245 Instrument Panel Harness COAX to A-Pillar Harness COAX (U2M without UE1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	COAX	—	I	—	Coaxial Antenna GPS Signal	1	—	COAX	—	I	—
2	—	COAX	—	I	—	Coaxial Antenna XM Signal	2	—	COAX	—	I	—

X271 Instrument Panel Harness to Instrument Panel Harness (WX7)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10846802

Service Connector: 19153166

Description: 8-Way F 1.5 Kaizen YESC Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10847035

Service Connector: 19153162

Description: 8-Way M 1.5 Kaizen YESC Series (L-GY)

Terminal Part Information

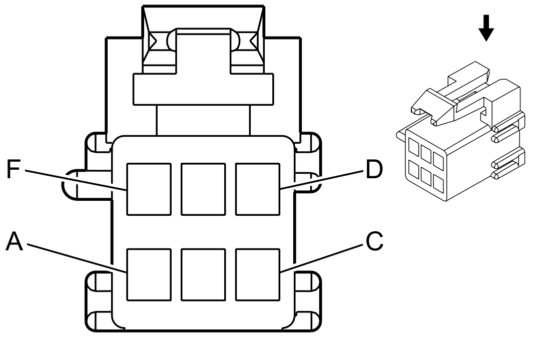
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

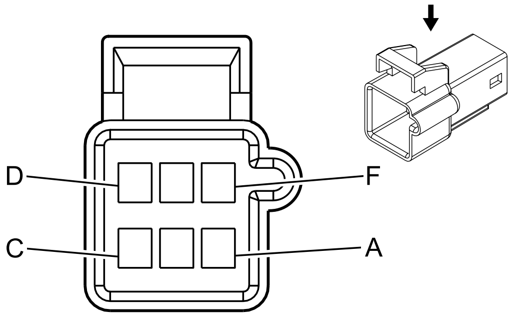
X271 Instrument Panel Harness to Instrument Panel Harness (WX7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/D-BU	118	I	-	Left Front Speaker Signal (-) (1)	1	0.75	BN/D-BU	118	II	-
2	0.75	YE/BK	117	I	-	Right Front Speaker Signal (-) (1)	2	0.75	YE/BK	117	II	-
3	0.5	L-GN/BK	116	I	-	Left Rear Speaker Signal (-)	3	0.5	L-GN/BK	116	II	-
4	0.5	D-BU/BK	115	I	-	Right Rear Speaker	4	0.5	D-BU/BK	115	II	-

						Signal (-)						
5	0.75	D-BU	201	I	-	Left Front Speaker (+) (1)	5	0.75	D-BU	201	II	-
6	0.75	YE	200	I	-	Right Front Speaker (+) (1)	6	0.75	YE	200	II	-
7	0.5	L-GN	199	I	-	Left Rear Speaker (+)	7	0.5	L-GN	199	II	-
8	0.5	WH	46	I	-	Right Rear Speaker (+)	8	0.5	WH	46	II	-

X272 Instrument Panel Harness to Upfitter Jumper (6J3 or 6J7)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 12064762

Service Connector: 13583923

Description: 6-Way F 150 Metri Pack Series (GY)

Connector Part Information

Harness Type: Upfitter Jumper

OEM Connector: 12064763

Service Connector: 12101876

Description: 6-Way M 150 Metri Pack Series (GY)

Terminal Part Information

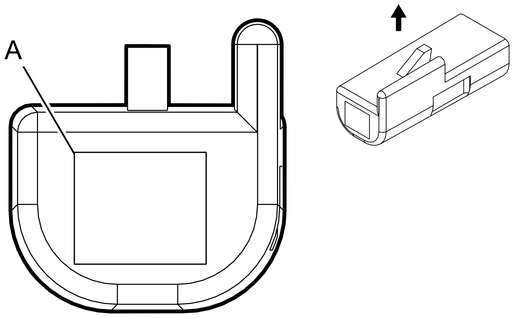
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

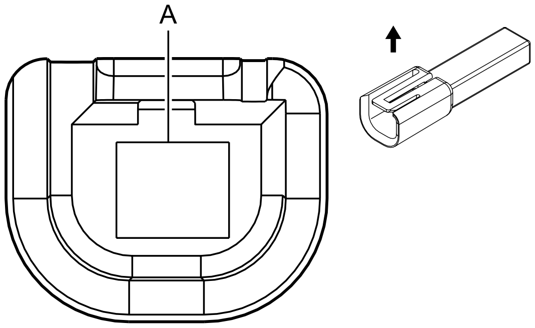
X272 Instrument Panel Harness to Upfitter Jumper (6J3 or 6J7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	L-GN	6820	I	-	Exterior Lamp Flasher Signal	A	0.75	L-GN	6820	II	-
B	0.75	D-BU/L-GN	6837	I	-	Siren #1 Supply	B	0.75	D-BU/L-GN	6837	II	-
C	0.75	L-GN/YE	6836	I	-	Siren #2 Supply Siren #2 Supply	C	0.75	L-GN/YE	6836	II	-
D	0.75	GY/VT	6838	I	-	Front Emergency Flasher Control	D	0.75	GY/VT	6838	II	-

E	0.75	YE/L-GN	6835	I	-	Front Emergency Lamp Supply Voltage	E	0.75	YE/L-GN	6835	II	-
F	-	-	-	-	-	Not Occupied	F	-	-	-	-	-

X273 Body Harness to Body Harness (6J4)





Connector Part Information

Harness Type: Body

OEM Connector: 12047682

Service Connector: 12101850

Description: 1–Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 12047683

Service Connector: 12101828

Description: 1-Way M 150 Metri-Pack Series (BK)

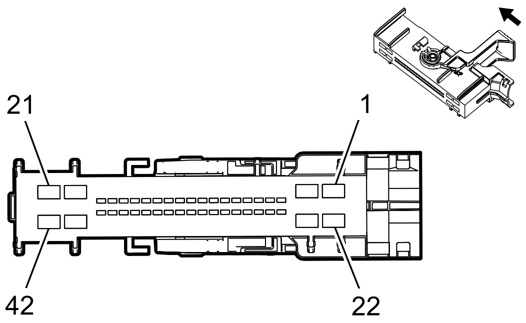
Terminal Part Information

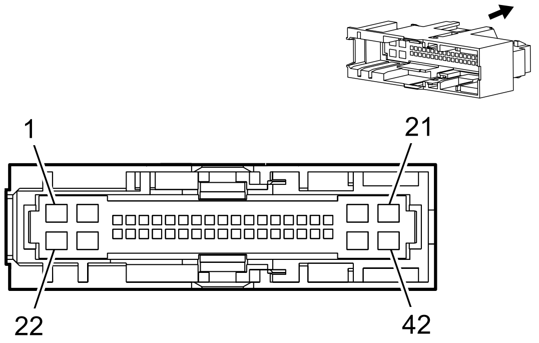
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575464	J-35616-14 (GN)	J-38125-12A	15326030	2	E	C
II	13575463	J-35616-3 (GY)	J-38125-12A	12047581	2	E	C

X273 Body Harness to Body Harness (6J4)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	BN/WH	28	I	-	Horn Relay Control	1	0.35	BN/WH	28	II	-

X275 Instrument Panel Harness to Body Harness





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13898440

Service Connector: 19300573

Description: 42-Way F 1.2, 2.8 Series (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 13898442

Service Connector: 13586235

Description: 42-Way M 0.64, 2.8 Series (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19301761	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19300649	J-35616-64B (L-BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	13582232	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	19329828	J-35616-5 (PU)	J-38125-212	Not Available	Not Available	Not Available	Not Available
V	19301763	J-35616-65B (L-BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VI	19301762	J-35616-65B (L-BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VII	19329835	J-35616-65B (L-BU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
VIII	13575824	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

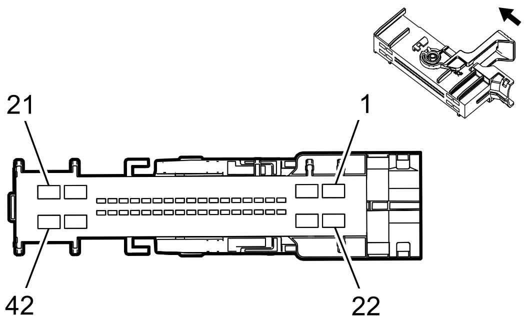
X275 Instrument Panel Harness to Body Harness

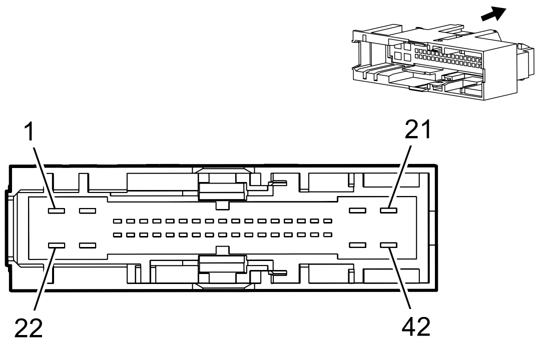
Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	0.75	VT/BN	1952	I	UQA, UQH or UQS	Right Front Tweeter Speaker (-)	1	0.75	VT/BN	1952	IV	UQA, UQH or UQS
2	1.5	VT/YE	143	I	D07 with AVF	Accessory Voltage	2	1.5	VT/YE	143	VIII	D07 with AVF
3	0.35	D-BU	2060	II	AZ3	Auxiliary Detection Signal	3	0.35	D-BU	2060	VI	AZ3
4	0.5	Bare	5842	II	AZ3	Auxiliary Audio Screen (2)	4	0.5	Bare	5842	V	AZ3
5	0.35	VT	5843	II	AZ3	Auxiliary Audio Common Signal	5	0.35	VT	5843	VI	AZ3
6	0.35	GY	5839	II	AZ3	Left Auxiliary Audio Signal (2)	6	0.35	GY	5839	VI	AZ3
7	0.35	L-GN	5841	II	AZ3	Right Auxiliary Audio Signal (2)	7	0.35	L-GN	5841	VI	AZ3
8	0.35	GY/YE	6972	II	UVC or UVH	Camera Signal #2 +	8	0.35	GY/YE	6972	VI	UVC or UVH
9	0.35	WH/D-BU	6973	II	UVC or UVH	Camera Signal #2 –	9	0.35	WH/D-BU	6973	VI	UVC or UVH
10	0.75	D-BU/YE	1960	II	UQH or UQS	Front Center Speaker (-)	10	0.75	D-BU/YE	1960	V	UQH or UQS
11	0.35	WH/VT	3999	II	-	MOST Control	11	0.35	WH/VT	3999	VI	-
12	0.5	YE/BK	117	II	UQ3	Right Front Speaker Signal (-) (1)	12	0.5	YE/BK	117	V	UQ3
13	0.5	BN/WH	1429	II	-	Standing Lamp Relay Control	13	0.5	BN/WH	1429	V	-
14	0.5	WH	46	II	UQ3	Right Rear Speaker (+)	14	0.5	WH	46	V	UQ3
15	0.35	YE/OG	3025	III	-	Passenger IP Module Stage 1 High Control	15	0.35	YE/OG	3025	VII	-
16	0.35	OG/WH	3024	III	-	Passenger IP Module Stage 1 Low Control	16	0.35	OG/WH	3024	VII	-
17	0.35	GY/OG	3027	III	-	Passenger IP Module Stage 2 High Control	17	0.35	GY/OG	3027	VII	-
18	0.35	OG/VT	3026	III	-	Passenger IP Module Stage 2 Low Control	18	0.35	OG/VT	3026	VII	-
19	0.35	WH/VT	4108	II	Z75	Driver Mode Switch Signal	19	0.35	WH/VT	4108	VI	Z75
20	0.75	YE/BK	117	I	UQ3	Right Front Speaker Signal (-) (1)	20	0.75	YE/BK	117	VIII	UQ3
21	1.5	VT/YE	243	I	AZ3 with AVF	Accessory Voltage	21	1.5	VT/YE	243	IV	AZ3 with AVF
22	0.75	BN/L-GN	1852	I	UQA, UQH or UQS	Right Front Tweeter Speaker (+)	22	0.75	BN/L-GN	1852	IV	UQA, UQH or UQS
23	0.5	WH/D-BU	5986	I	IO5, IO6, UE1 or UFL	Serial Data Communication Enable	23	0.5	WH/D-BU	5986	IV	IO5, IO6, UE1 or UFL

24	0.5	WH/YE	7557	II	-	LED Ambient Lighting Control 1	24	0.35	WH/YE	7557	VI	-
25	0.5	L-GN	5060	II	-	Low Speed GMLAN Serial Data	25	0.5	L-GN	5060	V	-
26	0.35	L-GN/WH	1932	II	BTM or JF4	Shift Select Switch Park Signal	26	0.35	L-GN/WH	1932	VI	BTM or JF4
27	0.35	D-BU	3554	II	BTM	Passive Start Interior Antenna 2 Signal Hi	27	0.35	D-BU	3554	VI	BTM
28	0.35	GY/BK	3555	II	BTM	Passive Start Interior Antenna 2 Signal Lo	28	0.35	GY/BK	3555	VI	BTM
29	0.35	Bare	6974	II	UVC or UVH	Camera Drain Wire	29	0.35	Bare	6974	VI	UVC or UVH
30	0.35	YE	6812	II	ATN, ATT or JF4	Out of Park Signal	30	0.35	YE	6812	VI	ATN, ATT or JF4
31	0.75	YE/WH	1860	II	UQH or UQS	Front Center Speaker (+)	31	0.75	YE/WH	1860	V	UQH or UQS
32	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
33	0.5	YE	200	II	UQ3	Right Front Speaker (+) (1)	33	0.5	YE	200	V	UQ3
34	0.75	D-BU/L-GN	6841	II	6J7	Rear Lamp Flasher Signal	34	0.75	D-BU/L-GN	6841	V	6J7
35	0.5	D-BU/BK	115	II	UQ3	Right Rear Speaker Signal (-)	35	0.5	D-BU/BK	115	V	UQ3
36	0.35 0.75	D-BU/OG L-GN	7328 6820	II	C9I 6J7	Passenger IP Module Disable Switch Return Exterior Lamp Flasher Signal	36	0.35 0.75	D-BU/OG L-GN	7328 6820	VI	C9I 6J7
37	0.35 0.75	VT/OG D-BU/L-GN	371 6837	II	C9I 6J7	Passenger IP Module Disable Switch Signal Siren #1 Supply	37	0.35 0.75	VT/OG D-BU/L-GN	371 6837	VI	C9I 6J7
38	0.75	L-GN/YE	6836	II	6J3	Siren #2 Supply	38	0.75	L-GN/YE	6836	V	6J3
39	0.75	GY/VT	6838	II	6J3	Front Emergency Flasher Control	39	0.75	GY/VT	6838	V	6J3
40	0.75	YE/L-GN	6835	II	6J3	Front Emergency Lamp Supply Voltage	40	0.75	YE/L-GN	6835	V	6J3
41	0.75	YE	200	I	UQ3	Right Front Speaker (+) (1)	41	0.75	YE	200	VIII	UQ3
42	-	-	-	-	-	Not Occupied	42	-	-	-	-	-

X300 Instrument Panel Harness to Floor Console Harness (D07)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13898441

Service Connector: 19301820

Description: 42-Way F 1.2, 2.8 Series (GY)

Connector Part Information

Harness Type: Floor Console

OEM Connector: 13898444

Service Connector: Service by Harness - See Part Catalog

Description: 42-Way M 0.64, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	19300649	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

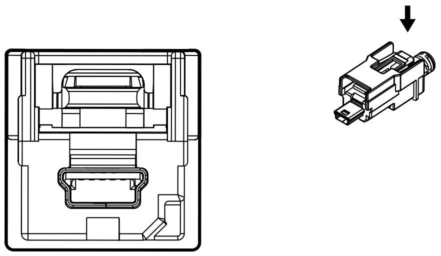
X300 Instrument Panel Harness to Floor Console Harness (D07)

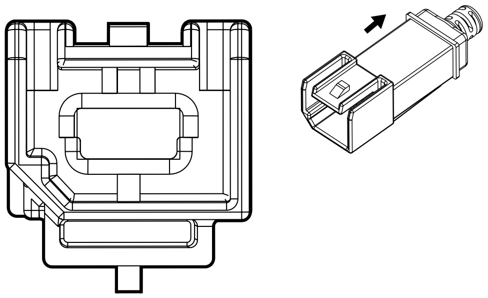
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5 1.5	VT/YE RD/D-BU	243 840	I	AVF without AVF	Accessory Voltage Battery Positive Voltage	1	1.5 1.5	VT/YE RD/D-BU	243 840	III	AVF without AVF
2	1.5 0.35	VT/YE RD/GY	143 2840	I	AVF KA1 or KB6, without Z75 and AVF	Accessory Voltage Battery Positive Voltage	2	1.5 0.35	VT/YE RD/GY	143 2840	III	AVF KA1 or KB6, without Z75 and AVF

3	0.35	BK/WH	1851	II	-	Signal Ground	3	0.35	BK/WH	1851	III	-
4	0.35	D-BU	2060	II	-	Auxiliary Detection Signal	4	0.35	D-BU	2060	III	-
5	0.35	BK	2550	II	-	Ground	5	0.35	BK	2550	III	-
6	0.35 0.35	WH BK	6816 2550	II	DCK without DCK	Indicator Dimming Control Ground	6	0.35 0.35	WH BK	6816 2550	III	DCK without DCK
7	0.35	VT/YE	43	II	K4C	Accessory Voltage	7	0.35	VT/YE	43	III	K4C
8	0.35	VT/L-GN	1739	II	-	Run/Crank Ignition 1 Voltage	8	0.5	VT/L-GN	1739	III	-
9	0.35	BK	1850	II	AVF	Ground	9	0.35	BK	1850	III	AVF
10	0.35	L-GN/YE	7531	II	-	Linear Interconnect Network Bus 9	10	0.35	L-GN/YE	7531	III	-
11	0.5	L-GN/WH	7527	II	X88 or Z88 with KA1 or KB6	Linear Interconnect Network Bus 5	11	0.5	L-GN/WH	7527	III	X88 or Z88 with KA1 or KB6
12	0.35	D-BU	3554	II	BTM	Passive Start Interior Antenna 2 Signal Hi	12	0.35	D-BU	3554	III	BTM
13	0.5	Bare	5842	II	-	Auxiliary Audio Screen (2)	13	0.5	Bare	5842	III	-
14	0.35	VT	5843	II	-	Auxiliary Audio Common Signal	14	0.35	VT	5843	III	-
15	0.5	Bare	2057	II	U42	Auxiliary Video Low Signal	15	0.5	Bare	2057	III	U42
16	0.35	L-GN/WH	3355	II	U42	Left Rear Seat Audio Headphone Signal	16	0.35	L-GN/WH	3355	III	U42
17	0.5	Bare	3354	II	U42	Rear Seat Audio Headphone Drain Wire	17	0.5	Bare	3354	III	U42
18	0.35	YE	2059	II	U42	Left Auxiliary Audio Signal (1)	18	0.35	YE	2059	III	U42
19	0.5	Bare	5345	II	U42	Auxiliary Audio Drain Wire (1)	19	0.5	Bare	5345	III	U42
20	1.5	RD/WH	1040	I	-	Battery Positive Voltage	20	1.5	RD/WH	1040	III	-
21	0.5	VT/BK	739	I	DCK	Run/Crank Ignition 1 Voltage	21	0.5	VT/BK	739	III	DCK
22	1.5	BK	1050	I	-	Ground	22	1.5	BK	1050	III	-
23	2.5	BK	1050	I	-	Ground	23	2.5	BK	1050	III	-
24	0.75	RD/VT	340	II	-	Battery Positive Voltage	24	0.75	RD/VT	340	III	-
25	0.5	VT/BN	300	II	KI4 or KI5	Run Ignition 3 Voltage	25	0.5	VT/BN	300	III	KI4 or KI5
26	0.35	D-BU/BN	6807	II	KI4 or KI5	DC To AC Inverter	26	0.35	D-BU/BN	6807	III	KI4 or KI5

						Control						
27	0.35	RD/GY	2840	II	X88 or Z88 with KA1 or KB6	Battery Positive Voltage	27	0.35	RD/GY	2840	III	X88 or Z88 with KA1 or KB6
28	0.5	WH/BN	6815	II	without DCK	Inadvertent Power Control	28	0.5	WH/BN	6815	III	without DCK
29	0.35	L-GN	4512	II	K4C	Wireless Charging System Charge Indicator Control	29	0.35	L-GN	4512	III	K4C
30	0.35	L-GN/GY	3277	II	BTM	Vehicle Anti-Theft System Immobilizer Return	30	0.35	L-GN/GY	3277	III	BTM
31	0.35	L-GN/VT	7533	II	BTM	Linear Interconnect Network Bus 11	31	0.35	L-GN/VT	7533	III	BTM
32	0.35	GY/BK	3276	II	BTM	Vehicle Anti-Theft System Immobilizer Supply Voltage	32	0.35	GY/BK	3276	III	BTM
33	0.35	GY/BK	3555	II	BTM	Passive Start Interior Antenna 2 Signal Lo	33	0.35	GY/BK	3555	III	BTM
34	0.35	L-GN	5841	II	-	Right Auxiliary Audio Signal (2)	34	0.35	L-GN	5841	III	-
35	0.35	GY	5839	II	-	Left Auxiliary Audio Signal (2)	35	0.35	GY	5839	III	-
36	0.35	YE	2056	II	U42	Auxiliary Video High Signal	36	0.35	YE	2056	III	U42
37	0.35	BN/GY	3357	II	U42	Right Rear Seat Audio Headphone Signal	37	0.35	BN/GY	3357	III	U42
38	0.35	D-BU/VT	3356	II	U42	Rear Seat Audio Headphone Common Signal	38	0.35	D-BU/VT	3356	III	U42
39	0.35	WH	2058	II	U42	Right Auxiliary Audio Signal (1)	39	0.35	WH	2058	III	U42
40	0.35	BN	3374	II	U42	Auxiliary Audio Common Signal (2)	40	0.35	BN	3374	III	U42
41	0.35	YE	6817	I	DCK	LED Backlight Dimming Control	41	0.5	YE	6817	III	DCK
42	0.75	RD/VT	340	I	-	Battery Positive Voltage	42	0.75	RD/VT	340	III	-

X302 Floor Console Harness USB to Instrument Panel Harness USB (D07 without U42)





Connector Part Information

Harness Type: Floor Console USB

OEM Connector: 13576672

Service Connector: Service by Harness — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (GY)

Connector Part Information

Harness Type: Instrument Panel USB

OEM Connector: 13578976

Service Connector: Service by Harness — See Part Catalog

Description: 5-Way F 2.0 Mini B USB Type (BK)

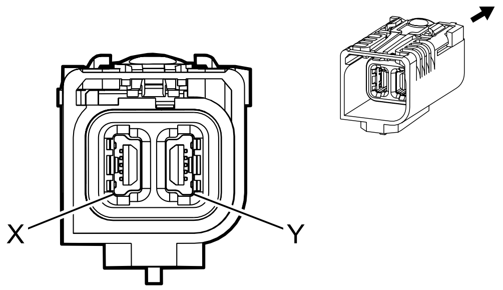
Terminal Part Information

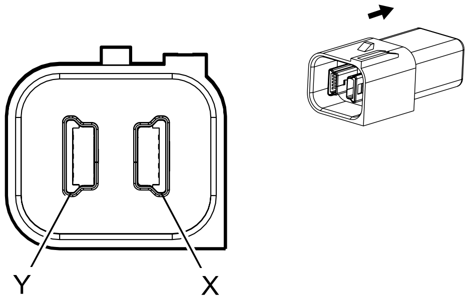
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X302 Floor Console Harness USB to Instrument Panel Harness USB (D07 without U42)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	USB	—	I	—	USB Serial Data	—	—	USB	—	I	—

X302 Floor Console Harness USB to Instrument Panel Harness USB (D07 with U42)





Connector Part Information

Harness Type: Floor Console

OEM Connector: 13586249

Service Connector: Service by Harness — See Part Catalog

Description: 2-Way M 2.0 Mini B USB Type (GY)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13586190

Service Connector: Service by Harness — See Part Catalog

Description: 2-Way F 2.0 Mini B USB Type (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X302 Floor Console Harness USB to Instrument Panel Harness USB (D07 with U42)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
X	—	USB	—	I	—	USB Serial Data	X	—	USB	—	I	—
Y	—	USB	—	I	—	USB Serial Data	Y	—	USB	—	I	—

X303 Instrument Panel Harness USB to Floor Console Harness USB (D07 with U42)

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Connector Part Information

Harness Type: Floor Console

OEM Connector: 13586195

Service Connector: Service by Harness — See Part Catalog

Description: 2-Way M 2.0 Mini B USB Type (BK)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 13586193

Service Connector: Service by Harness — See Part Catalog

Description: 2-Way F 2.0 Mini B USB Type (BK)

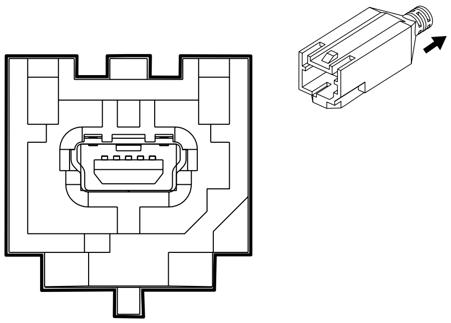
Terminal Part Information

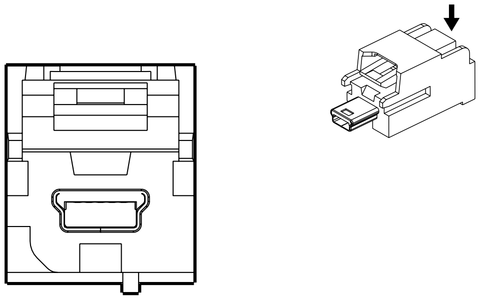
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X303 Instrument Panel Harness USB to Floor Console Harness USB (D07 with U42)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
X	—	USB	—	I	—	USB Serial Data	X	—	USB	—	I	—
Y	—	USB	—	I	—	USB Serial Data	Y	—	USB	—	I	—

X304 Body Harness USB to Center Seat Harness USB (AZ3)





Connector Part Information

Harness Type: Body USB

OEM Connector: 13925321

Service Connector: Service by Harness — See Part Catalog

Description: 5-Way F 2.0 Mini B USB Type (BK)

Connector Part Information

Harness Type: Center Seat USB

OEM Connector: 13925322

Service Connector: Service by Harness — See Part Catalog

Description: 5-Way M 2.0 Mini B USB Type (GY)

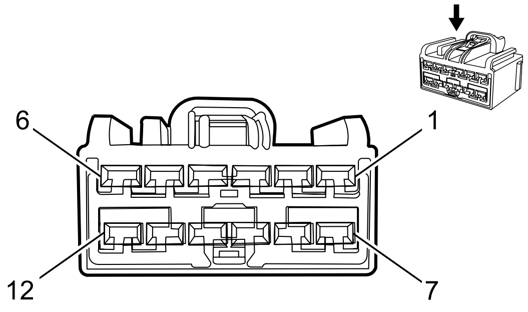
Terminal Part Information

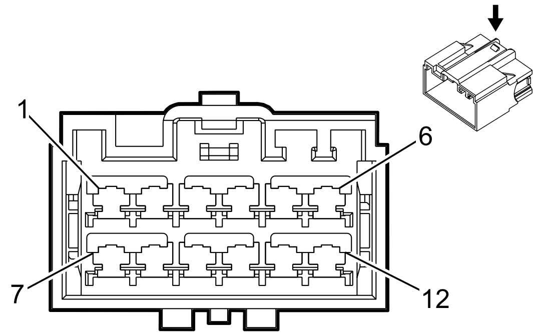
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X304 Body Harness USB to Center Seat Harness USB (AZ3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	USB	—	I	—	USB Serial Data	—	—	USB	—	I	—

X305 Instrument Panel Harness to Power Receptacle Jumper Harness (KI5)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10846814

Service Connector: 13580444

Description: 12-Way F 2.8 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Power Receptacle Jumper

OEM Connector: 10846810

Service Connector: Service by Harness - See Part Catalog

Description: 12-Way M (L-GY)

Terminal Part Information

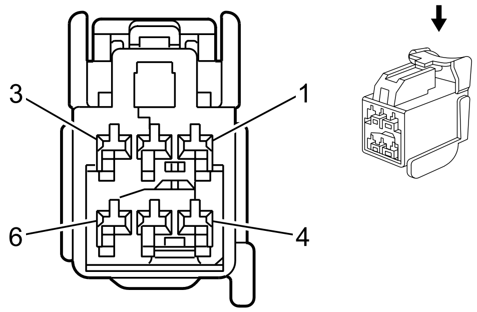
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575836	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	13575295	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13575838	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	19301761	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
V	13575544	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VI	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

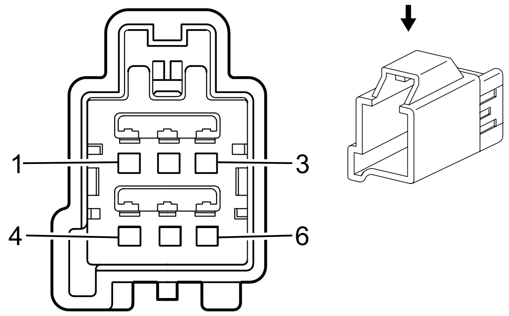
X305 Instrument Panel Harness to Power Receptacle Jumper Harness (KI5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-

2	1.5	BK	5683	III		120 VAC Phase A	2	1.5	BK	5683	VI	-
3-5	-	-	-	-	-	Not Occupied	3-5	-	-	-	-	-
6	2.5	RD/GY	4140	II	-	Battery Positive Voltage	6	2.5	RD/GY	4140	VI	-
7	1.5	RD	5684	IV		120 VAC Phase B	7	1.5	RD	5684	VI	-
8-9	-	-	-	-	-	Not Occupied	8-9	-	-	-	-	-
10	0.35	BK/WH	514	I		Drain Wire	10	0.35	Bare	514	VI	-
11	2.5	BK	1050	II	-	Ground	11	2.5	BK	1050	VI	-
12	0.35	D-BU/BN	6807	I	-	DC To AC Inverter Control	12	0.35	D-BU/BN	6807	VI	-

X306 Instrument Panel Harness to Floor Console Harness (KI4 or KI5, with D07)





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10846805

Service Connector: 89046849

Description: 6-Way F 1.5 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Floor Console

OEM Connector: 10846804

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 1.5 Series (L-GY)

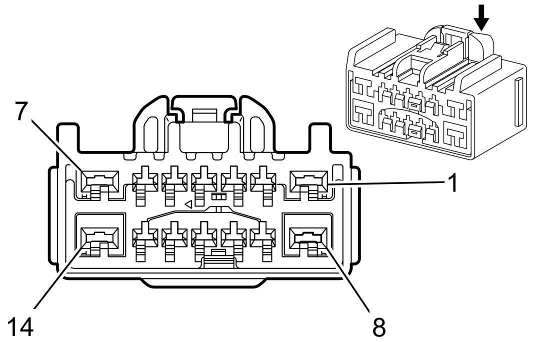
Terminal Part Information

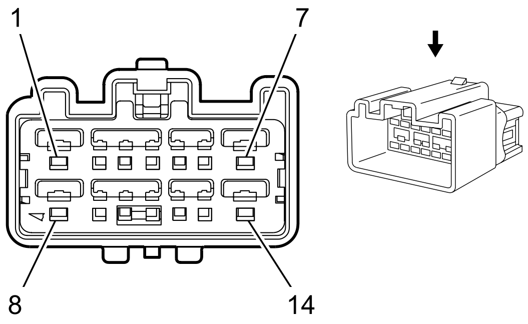
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

X306 Instrument Panel Harness to Floor Console Harness (KI4 or KI5, with D07)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	5683	I	KI4 or KI5	120 VAC Phase A	1	0.75	BK	5683	II	KI4 or KI5
2	0.75	RD	5684	I	KI4 or KI5	120 VAC Phase B	2	0.75	RD	5684	II	KI4 or KI5
3	0.5	BK/WH	514	I	-	Drain Wire	3	0.5	BK/WH	514	II	-
4-6	-	-	-	-	-	Not Occupied	4-6	-	-	-	-	-

X307 Floor Console Harness to Floor Console Harness (X88 or Z88 with D07)





Connector Part Information

Harness Type: Floor Console

OEM Connector: 15452737

Service Connector: Service by Harness - See Part Catalog

Description: 14-Way F 1.5, 2.8 Series (BK)

Connector Part Information

Harness Type: Floor Console

OEM Connector: 15452738

Service Connector: Service by Harness - See Part Catalog

Description: 14-Way M 1.5, 2.8 Series (BK)

Terminal Part Information

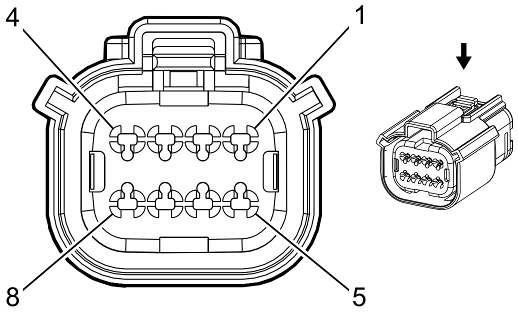
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

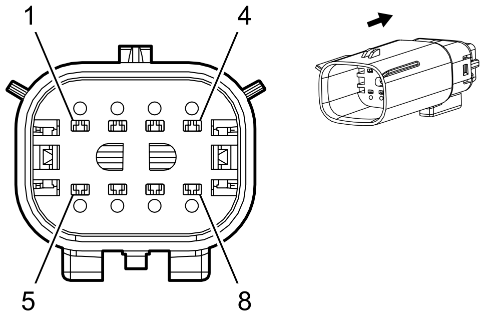
X307 Floor Console Harness to Floor Console Harness (X88 or Z88 with D07)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	RD/WH	1040	I	-	Battery Positive Voltage	1	1.5	RD/WH	1040	II	-
2	0.35	RD/GY	2840	I	KA1 or KB6	Battery Positive Voltage	2	0.35 0.35	RD/GY RD/GY	2840 2840	II	KA1 or KB6
3	0.5	L-GN/WH	7527	I	KA1 or KB6	Linear Interconnect Network Bus 5 Linear Interconnect Network Bus 5	3	0.5 0.5	L-GN/WH L-GN/WH	7527 7527	II	KA1 or KB6

4	0.35	D-BU	2060	I	IO3	Auxiliary Detection Signal	4	0.35	D-BU	2060	II	IO3
5	0.5	YE	6817	I	DCK	LED Backlight Dimming Control	5	0.5	YE	6817	II	DCK
6	-	-	-	-	-	Not Occupied	6	-	-	-	-	-
7	0.75	RD/VT	340	I	IO5 or IO6	Battery Positive Voltage	7	0.75	RD/VT	340	II	IO5 or IO6
8	1.5	BK	1050	I	-	Ground	8	1.5	BK	1050	II	-
9	0.35	BK	1850	I	KA1 or KB6	Ground	9	0.35 0.35	BK BK	1850 1850	II	KA1 or KB6
10	0.35 0.5	L-GN BK	5841 1050	I	IO3 DCK	Right Auxiliary Audio Signal (2) Ground	10	0.35 0.5	L-GN BK	5841 1050	II	IO3 DCK
11	0.35 0.5	GY WH	5839 6816	I	IO3 DCK	Left Auxiliary Audio Signal (2) Indicator Dimming Control	11	0.35 0.5	GY WH	5839 6816	II	IO3 DCK
12	0.35 0.35	VT BN	5843 6532	I	IO3 DCK	Auxiliary Audio Common Signal Compartment Cooler Control Signal	12	0.35 0.35	VT BN	5843 6532	II	IO3 DCK
13	0.5 0.35	Bare GY/BK	5842 2546	I	IO3 DCK	Auxiliary Audio Screen (2) Compartment Cooler Indicator Control	13	0.5 0.35	Bare GY/BK	5842 2546	II	IO3 DCK
14	0.35	BK	2550	I	IO5 or IO6	Ground	14	0.35	BK	2550	II	IO5 or IO6

X308 Body Harness to 2nd Row Seat Jumper Harness (ATN, ATT or KA6)





Connector Part Information

Harness Type: Body

OEM Connector: 13654393

Service Connector: 13577527

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: 2nd Row Seat Left

OEM Connector: 13503538

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

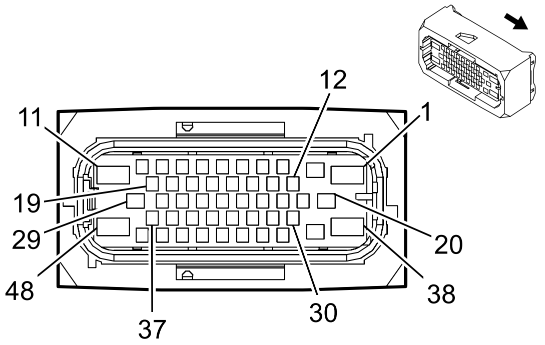
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

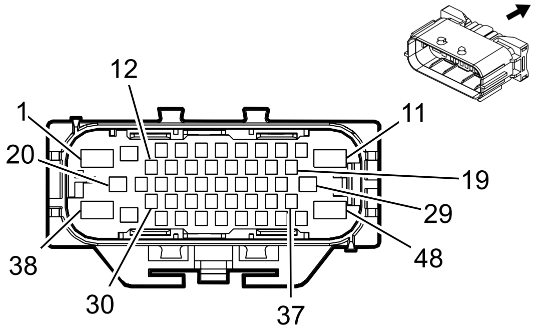
X308 Body Harness to 2nd Row Seat Jumper Harness (ATN, ATT or KA6)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	RD/L-GN	5140	I	KA6	Battery Positive Voltage	1	0.75	RD/L-GN	5140	II	KA6
2	0.75	RD/L-GN	6140	I	KA6	Battery Positive Voltage	2	0.75	RD/L-GN	6140	II	KA6
3	0.75	L-GN/BN	2296	I	KA6	Right Rear Heated Seat Cushion Element Supply Voltage	3	0.75	L-GN/BN	2296	II	KA6
4	0.5	L-GN/D-BU	6133	I	KA6	Linear Interconnect Network Bus 2	4	0.35	L-GN/L-BU	6133	II	KA6

5	0.75	RD/D-BU	1240	I	ATN or ATT	Battery Positive Voltage	5	0.75	RD/L-BU	1240	II	ATN or ATT
6	0.5	L-GN	6808	I	ATN or ATT	Left Rear Seat Fold Tumble Control	6	0.5	L-GN	6808	II	ATN or ATT
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-
8	0.75	BK	1150	I	-	Ground	8	0.75	BK	1150	II	-

X310 Driver Seat Harness to Body Harness





Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15509590

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 13937634

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	13327188	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	19301769	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	13327190	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
V	13578881	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VI	13579756	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VII	13582344	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

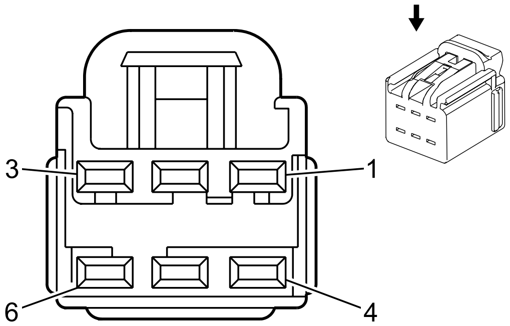
X310 Driver Seat Harness to Body Harness

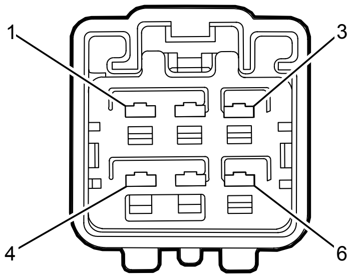
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option

1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	2.5	RD/YE	5040	III	A45 or ULT	Battery Positive Voltage	2	2.5	RD/YE	5040	VI	A45 or ULT
3	1.5	YE	5129	II	JF4 with A45	Adjustable Pedal Actuator Rearward Control	3	1.5	YE	5129	VII	JF4 with A45
4	1.5	L-GN/VT	5130	II	JF4 with A45	Adjustable Pedal Actuator Forward Control	4	1.5	L-GN/VT	5130	VII	JF4 with A45
5	0.35	OG/L-GN	5055	II	-	Driver Seat Position Switch Signal	5	0.35	OG/L-GN	5055	IV	-
6	0.35	OG/BN	238	II	-	Driver Seat Belt Switch Signal	6	0.35	OG/BN	238	IV	-
7	0.35	BK/OG	1363	II	-	Driver Seat Belt Switch Low Reference	7	0.35	BK/OG	1363	IV	-
8	0.5	RD/RD	2240	II	ULT	Battery Positive Voltage	8	0.75	RD/BN	2240	V	ULT
9	0.35	L-GN/GY	5286	II	JF4 with A45	Adjustable Pedal Switch Forward Signal	9	0.35	L-GN/GY	5286	IV	JF4 with A45
10	0.35	WH/GY	5285	II	JF4 with A45	Adjustable Pedal Switch Rearward Signal	10	0.35	WH/GY	5285	IV	JF4 with A45
11	4	BK	1150	II	-	Ground	11	4	BK	1150	II	-
12	-	-	-	-	-	Not Occupied	12	-	-	-	-	-
13	0.5	WH/RD	6207	II	JF4 with A45	Memory Sensor High Reference	13	0.35	WH/RD	6207	IV	JF4 with A45
14	0.35	L-BU	5952	II	JF4 with A45	Adjustable Pedal Position Sensor Brake Signal	14	0.35	D-BU	5952	IV	JF4 with A45
15	0.5	BK/GY	6206	II	JF4 with A45	Memory Sensor Low Reference	15	0.35	BK/GY	6206	IV	JF4 with A45
16	-	-	-	-	-	Not Occupied	16	-	-	-	-	-
17	0.5	L-GN/WH	7530	II	A45	Linear Interconnect Network Bus 8	17	0.5	L-GN/WH	7530	V	A45
18	-	-	-	-	-	Not Occupied	18	-	-	-	-	-
19	0.35	L-GN/VT	5906	II	KB6	Driver Seat Vent Motor Control (1)	19	0.35	L-GN/VT	5906	IV	KB6
20-22	-	-	-	-	-	Not Occupied	20-22	-	-	-	-	-
23	0.75	RD/BN	1140	II	A45 or ULT	Battery Positive Voltage	23	0.5	RD/BN	1140	V	A45 or ULT
24	0.5	L-GN/OG	3069	I	-	Driver Side Impact Module Low Control	24	0.35	L-GN/OG	3069	II	-
25	0.5	YE/OG	3482	I	-	Driver Seat Belt Anchor Pretensioner Low Control	25	0.35	YE/OG	3482	II	-

26	0.5	L-GN	5060	II	A45	Low Speed GMLAN Serial Data	26	0.5	L-GN	5060	V	A45
27-32	-	-	-	-	-	Not Occupied	27-32	-	-	-	-	-
33	0.5	OG/L-BU	3068	I	-	Driver Side Impact Module High Control	33	0.35	OG/D-BU	3068	II	-
34	0.5	OG/YE	3481	I	-	Driver Seat Belt Anchor Pretensioner High Control	34	0.35	OG/YE	3481	II	-
35	0.35	BU/L-GN	614	II	A45	Memory Seat Switch Set Signal	35	0.35	D-BU/L-GN	614	IV	A45
36	0.75	BN	2432	II	KA1	Driver Heated Back Element Supply Voltage	36	0.75	BN	2432	V	KA1
37	0.75	BN/VT	2077	II	KA1	Driver Heated Seat Element Supply Voltage	37	0.75	BN/VT	2077	V	KA1
38-39	-	-	-	-	-	Not Occupied	38-39	-	-	-	-	-
40	0.35	BK/L-BU	5978	II	A45	Memory Switch Low Reference	40	0.35	BK/D-BU	5978	IV	A45
41	0.35	WH	615	II	A45	Memory Seat Switch Signal (1)	41	0.35	WH	615	IV	A45
42	-	-	-	-	-	Not Occupied	42	-	-	-	-	-
43	0.5	VT	4106	I	AYQ	Center Side Impact Module Low Control	43	0.35	VT	4106	II	AYQ
44	0.5	BN/WH	4107	I	AYQ	Center Side Impact Module High Control	44	0.35	BN/WH	4107	II	AYQ
45	-	-	-	-	-	Not Occupied	45	-	-	-	-	-
46	0.35	GY	7557	II	-	Interior Lamp Control	46	0.35	WH/YE	7557	IV	-
47	0.75	RD/L-GN	5140	II	KB6	Battery Positive Voltage	47	0.75	RD/L-GN	5140	V	KB6
48	-	-	-	-	-	Not Occupied	48	-	-	-	-	-

X311 Driver Seat Back Harness to Driver Seat Cushion Harness (without ULT)





Connector Part Information

Harness Type: Driver Seat

OEM Connector: 7282-6466-40

Service Connector: 19153175

Description: 6-Way F Kaizen YESC Series (L-GY)

Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7282-6466-40

Service Connector: 19153164

Description: 6-Way M Kaizen YESC Series (L-GY)

Terminal Part Information

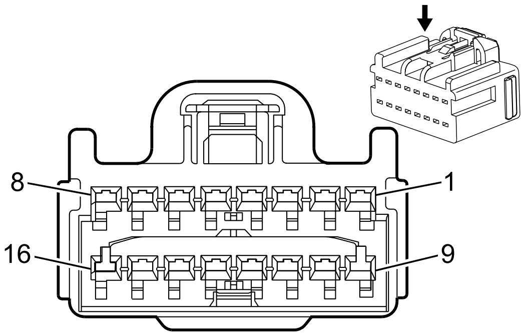
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

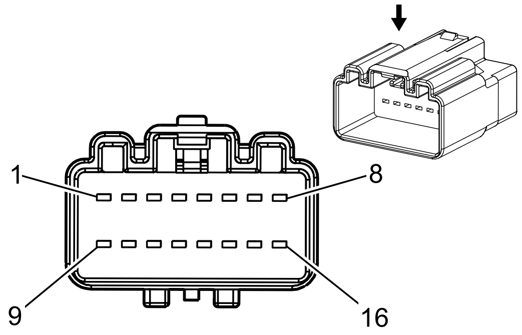
X311 Driver Seat Back Harness to Driver Seat Cushion Harness (without ULT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	YE/L-BU	767	I	A45	Driver Power Seat Lumbar Motor Down Control	1	1.5	YE/L-BU	767	II	A45
2	1.5	YE/BN	768	I	A45	Driver Power Seat Lumbar Motor Up Control	2	1.5	YE/BN	768	II	A45
3	1.5	L-BU	611	I	-	Driver Power Seat Lumbar Motor Forward	3	1.5	L-BU	611	I	-

						Control						
4	1.5	VT	610	I	-	Driver Power Seat Lumbar Motor Rearward Control	4	1.5	VT	610	I	-
5	1.5	L-GN/YE	276	I	-	Driver Power Seat Recline Motor Forward Control	5	1.5	L-GN/YE	276	II	-
6	1.5	L-BU/YE	277	I	-	Driver Power Seat Recline Motor Rearward Control	6	1.5	L-BU/YE	277	II	-

X312 Driver Seat Back Harness to Driver Seat Cushion Harness (without ULT)





Connector Part Information

Harness Type: Driver Seat

OEM Connector: 89047090

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5 Kaizen Series (GN)

Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 89047072

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way M 1.5 Kaizen Series (GN)

Terminal Part Information

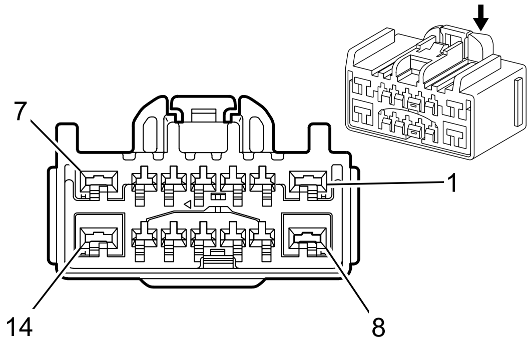
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

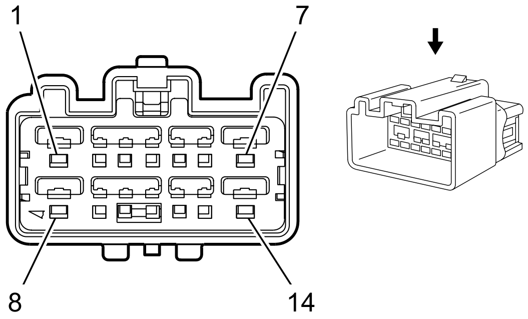
X312 Driver Seat Back Harness to Driver Seat Cushion Harness (without ULT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG/L-BU	3068	I	-	Driver Side Impact Module High Control	1	0.5	OG/L-BU	3068	II	-
2	0.5	L-GN/OG	3069	I	-	Driver Side Impact Module Low Control	2	0.5	L-GN/OG	3069	II	-
3	0.5	VT	4106	I	AYQ	Center Side Impact Module Low Control	3	0.5	VT	4106	II	AYQ
4	0.5	BN/WH	4107	I	AYQ	Center Side Impact	4	0.5	BN/WH	4107	II	AYQ

						Module High Control						
5	0.75	BK	1150	I	KA1 or KB6	Ground	5	0.75	BK	1150	II	KA1 or KB6
6	0.75 0.75	BN RD/L-GN	2432 5140	I	KA1 KB6	Driver Heated Back Element Supply Voltage Battery Positive Voltage	6	0.75 0.75	BN RD/L-GN	2432 5140	II	KA1 KB6
7	0.35	L-GN/VT	5906	I	KB6	Driver Seat Vent Motor Control (1)	7	0.35	L-GN/VT	5906	II	KB6
8-11	-	-	-	-	-	Not Occupied	8-11	-	-	-	-	-
12	0.5	WH/BK	570	I	A45	Driver Memory Seat Recline Motor Position Sensor Signal	12	0.5	WH/BK	570	II	A45
13	0.35	WH/RD	3298	I	A45	Memory Sensor High Reference (2)	13	0.35	WH/RD	3298	II	A45
14-16	-	-	-	-	-	Not Occupied	14-16	-	-	-	-	-

X312 Driver Seat Back Harness to Driver Seat Cushion Harness (ULT)





Connector Part Information

Harness Type: Driver Seat Back

OEM Connector: 7283–5623–30

Service Connector: 19167675

Description: 14–Way F 1.5, 2.8 Series (BK)

Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 7282–5623–30

Service Connector: 13581065

Description: 14-Way M 1.5, 2.8 Series (BK)

Terminal Part Information

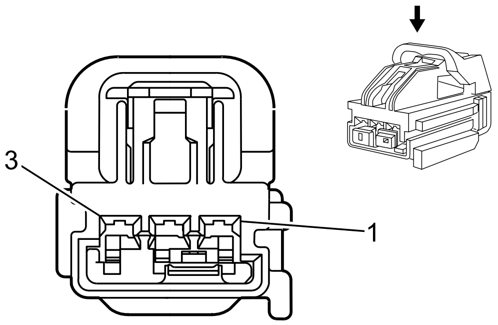
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

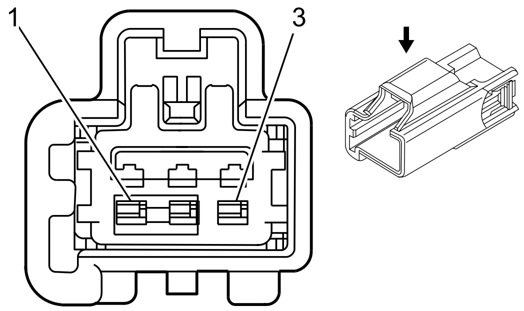
X312 Driver Seat Back Harness to Driver Seat Cushion Harness (ULT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	L-GN/YE	276	I	-	Driver Power Seat Recline Motor Forward Control	1	1.5	L-GN/YE	276	II	-
2	0.5	OG/L-BU	3068	I	-	Driver Side Impact Module High Control	2	0.5	OG/L-BU	3068	II	-
3	0.5	L-GN/OG	3069	I	-	Driver Side Impact Module Low Control	3	0.5	L-GN/OG	3069	II	-
4	0.5	VT	4106	I	-	Center Side Impact	4	0.5	VT	4106	II	-

4	0.5	VT	4106	I	-	Center Side Impact Module Low Control	4	0.5	VT	4106	II	-
5	0.5	BN/WH	4107	I	-	Center Side Impact Module High Control	5	0.5	BN/WH	4107	II	-
6	0.75	BK	1150	I	-	Ground	6	0.75	BK	1150	II	-
7	1.5	L-BU/YE	277	I	-	Driver Power Seat Recline Motor Rearward Control	7	1.5	L-BU/YE	277	II	-
8	-	-	-	-	-	Not Occupied	8	-	-	-	-	-
9	0.75	RD/L-GN	5140	I	-	Battery Positive Voltage	9	0.75	RD/L-GN	5140	II	-
10	0.35	L-GN/VT	5906	I	-	Driver Seat Vent Motor Control (1)	10	0.35	L-GN/VT	5906	II	-
11	0.5	WH/BK	570	I	-	Driver Memory Seat Recline Motor Position Sensor Signal	11	0.5	WH/BK	570	II	-
12	0.35	WH/RD	3298	I	-	Memory Sensor High Reference (2)	12	0.35	WH/RD	3298	II	-
13–14	-	-	-	-	-	Not Occupied	13–14	-	-	-	-	-

X313 Power Mat Jumper Harness to Floor Console Harness (DCK)





Connector Part Information

Harness Type: Power Mat Jumper

OEM Connector: 10847008

Service Connector: 19149536

Description: 3–Way F 1.5 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Floor Console

OEM Connector: 10846803

Service Connector: 19167751

Description: 3-Way M 1.5 Kaizen YESC Series (L-GY)

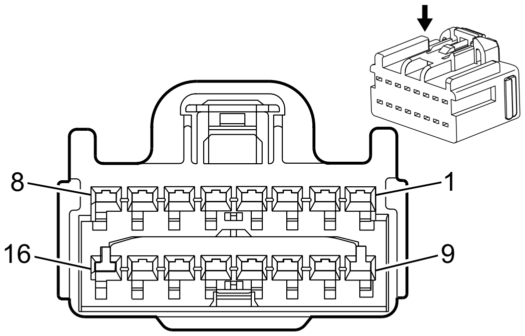
Terminal Part Information

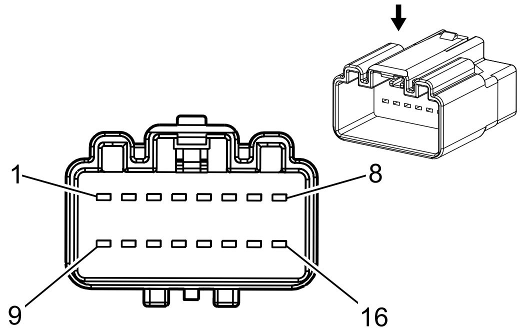
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13575708	J-35616-2A (GY)	J-38125-11A	7116-4101-08	9	E	A
III	13587412	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available

X313 Power Mat Jumper Harness to Floor Console Harness (DCK)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	VT/YE	43	I	-	Accessory Voltage	1	0.35	VT/YE	43	II	-
2	0.75	BK	1050	I	-	Ground	2	0.75	BK	1050	III	-
3	0.35	GN	4512	I	-	Wireless Charging System Charge Indicator Control	3	0.35	GN	4512	II	-

X315 Headliner Harness to Body Harness (NKC, UGN, UTU or UTV)





Connector Part Information

Harness Type: Headliner

OEM Connector: 10847013

Service Connector: 89047090

Description: 16-Way F 1.5 Kaizen Series (GN)

Connector Part Information

Harness Type: Body

OEM Connector: 13507433

Service Connector: 89047072

Description: 16-Way M 1.5 Kaizen Series (GN)

Terminal Part Information

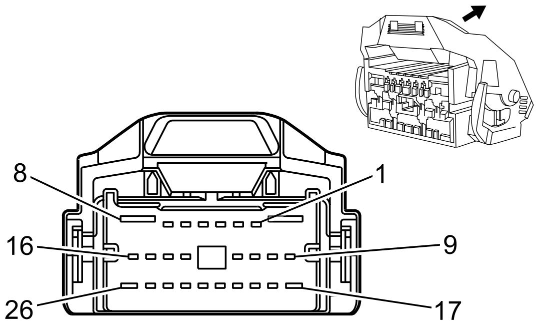
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	13575816	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	13587412	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

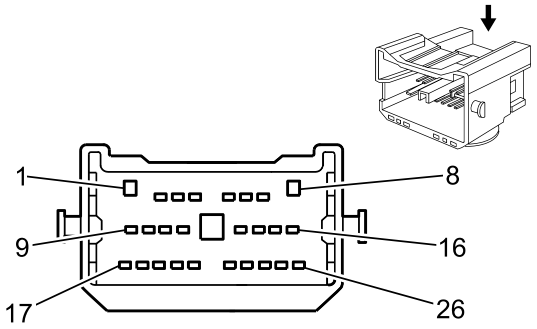
X315 Headliner Harness to Body Harness (NKC, UGN, UTU or UTV)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD/D-BU	4540	I	UTU or UTV	Battery Positive Voltage	1	0.5	RD/D-BU	4540	III	UTU or UTV
2-3	-	-	-	-	-	Not Occupied	2-3	-	-	-	-	-
4	0.5	D-BU/VT	3813	I	UGN with Z75	High Speed GMLAN Serial Data (+) (4)	4	0.5	D-BU/VT	3813	III	UGN with Z75
5	0.5	WH	3811	I	UGN with Z75	High Speed GMLAN	5	0.5	WH	3811	III	UGN with Z75

						Serial Data (-) (4)					
6	0.5	L-GN/BN	6132	I	UTU or UTV	Linear Interconnect Network Bus 1	6	0.5	L-GN/BN	6132	III	UTU or UTV
7	0.35	D-BU/VT	3813	I	UGN with Z75	High Speed GMLAN Serial Data (+) (4)	7	0.5	D-BU/VT	3813	III	UGN with Z75
8	0.35	WH	3811	I	UGN with Z75	High Speed GMLAN Serial Data (-) (4)	8	0.5	WH	3811	III	UGN with Z75
9	0.35	GY/VT	3808	I	UGN with Z75	Front Object Sensor Supply Voltage (2)	9	0.35	GY/VT	3808	II	UGN with Z75
10	0.35	L-GN/BK	3008	I	NKC	Noise Reduction Microphone #1 Return	10	0.35	L-GN/BK	3008	II	NKC
11	0.35	L-GN/BN	3005	I	NKC	Noise Reduction Microphone #1 Signal	11	0.35	L-GN/BN	3005	II	NKC
12	0.35	D-BU/BK	3009	I	NKC	Noise Reduction Microphone #2 Return	12	0.35	D-BU/BK	3009	II	NKC
13	0.35	D-BU/YE	3006	I	NKC	Noise Reduction Microphone #2 Signal	13	0.35	D-BU/YE	3006	II	NKC
14	0.35	GY/BN	3010	I	NKC	Noise Reduction Microphone #3 Return	14	0.35	GY/BN	3010	II	NKC
15	0.35	GY/D-BU	3007	I	NKC	Noise Reduction Microphone #3 Signal	15	0.35	GY/D-BU	3007	II	NKC
16	-	-	-	-	-	Not Occupied	16	-	-	-	-	-

X316 Headliner Harness to Overhead Console Harness





Connector Part Information

Harness Type: Headliner

OEM Connector: 15518265

Service Connector: 13587877

Description: 26-Way F 1.5, 2.8, 6.3 Series (BK)

Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13536441

Service Connector: Service by Harness - See Part Catalog

Description: 26-Way M Hybrid Series (BK)

Terminal Part Information

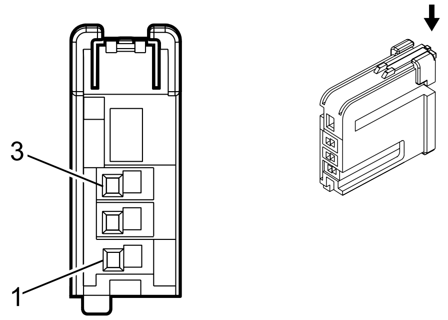
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	13575836	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

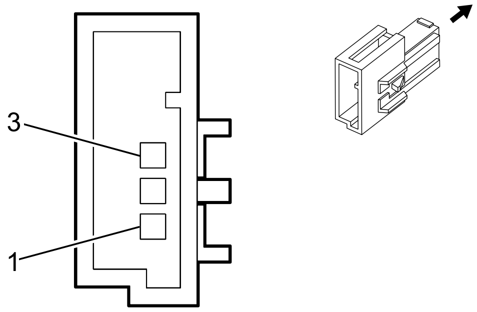
X316 Headliner Harness to Overhead Console Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	0.35	L-GN	6112	I	TB5 or TC2	Power Lift Gate On/Off Switch Signal	2	0.35	L-GN	6112	III	TB5 or TC2
3	-	-	-	-	-	Not Occupied	3	-	-	-	-	-
4	0.5	BK	1050	II	-	Ground	4	0.5	BK	1050	III	-

5	0.35	GY/L-GN	328	I	-	Interior Lamp Defeat Switch Signal	5	0.35	GY/L-GN	328	III	-
6	0.35	GY	156	I	-	Courtesy Lamp Switch Signal	6	0.35	GY	156	III	-
7	0.5	WH/BN	6815	II	-	Inadvertent Power Control	7	0.5	WH/BN	6815	III	-
8	-	-	-	-	-	Not Occupied	8	-	-	-	-	-
9	0.35	VT/L-GN	7558	I	-	LED Ambient Lighting Control 2	9	0.35	VT/L-GN	7558	III	-
10	0.5	YE	6817	II	-	LED Backlight Dimming Control	10	0.5	YE	6817	III	-
11	0.35	VT/WH	1139	I	-	Run/Crank Ignition 1 Voltage	11	0.35	VT/WH	1139	III	-
12	0.35	VT/WH	5234	I	-	Passenger Seat Belt Indicator	12	0.35	VT/WH	5234	III	-
13	0.35	D-BU	2307	I	-	Passenger Air Bag On Indicator Control	13	0.35	D-BU	2307	III	-
14	0.35	L-GN	2308	I	-	Passenger Air Bag Off Indicator Control	14	0.35	L-GN	2308	III	-
15	0.35	RD/D-BU	4540	I	-	Battery Positive Voltage	15	0.35	RD/D-BU	4540	III	-
16	0.5	L-GN/BN	6132	II	-	Linear Interconnect Network Bus 1	16	0.5	L-GN/BN	6132	III	-
17	0.5	RD/YE	240	II	UG1 or TRW	Battery Positive Voltage	17	0.5	RD/YE	240	III	UG1 or TRW
18	0.35	GY/BK	6113	I	TB5 or TC2	Rear Lift Gate Open/Close Switch Signal	18	0.35	GY/BK	6113	III	TB5 or TC2
19–20	-	-	-	-	-	Not Occupied	19–20	-	-	-	-	-
21	0.5	GY	157	II	-	Interior Lamp Control	21	0.5	GY	157	III	-
22	-	-	-	-	-	Not Occupied	22	-	-	-	-	-
23	0.35	VT/YE	43	I	CF5	Accessory Voltage	23	0.35	VT/YE	43	III	CF5
24-26	-	-	-	-	-	Not Occupied	24-26	-	-	-	-	-

X318 Rain Sensor Jumper Harness to A-Pillar Harness





Connector Part Information

Harness Type: Rain Sensor Jumper

OEM Connector: 19153430

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series (BK)

Connector Part Information

Harness Type: A-Pillar

OEM Connector: 13646861

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way M 0.64 Series (BK)

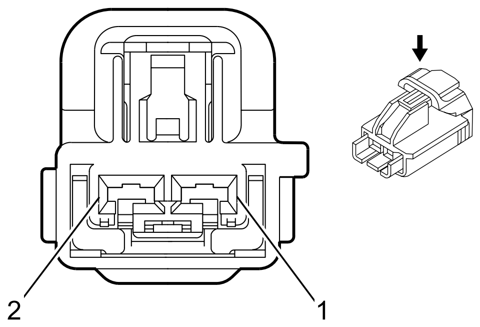
Terminal Part Information

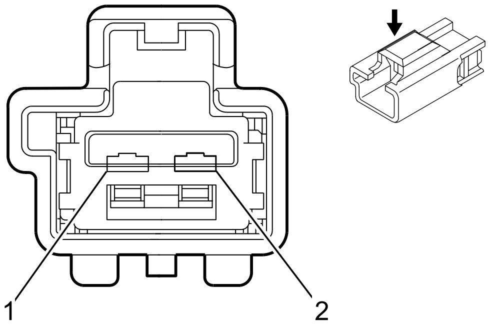
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-65B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

X318 Rain Sensor Jumper Harness to A-Pillar Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	RD/D-BU	840	I	-	Battery Positive Voltage	1	0.35	RD/D-BU	840	II	-
2	0.5	L-GN/BN	6132	I	-	Linear Interconnect Network Bus 1	2	0.5	L-GN/BN	6132	II	-
3	0.35	BK	1050	I	-	Ground	3	0.35	BK	1050	II	-

X319 A-Pillar Harness to Sunroof Harness (CF5 or TRW)





Connector Part Information

Harness Type: Sunroof Harness

OEM Connector: 7283-6445-40

Service Connector: 19301720

Description: 2-Way F Kaizen YESC Series (L-GY)

Connector Part Information

Harness Type: A-Pillar

OEM Connector: 10846812

Service Connector: 88988510

Description: 2-Way M Kaizen YESC Series (L-GY)

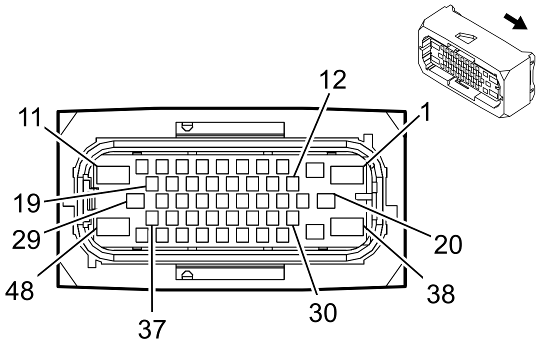
Terminal Part Information

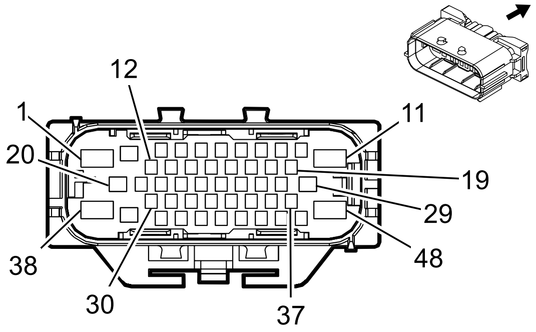
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575295	J-35616-35 (VT)	J-38125-11A	7116-4112-02	9	C	D
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X319 A-Pillar Harness to Sunroof Harness (CF5 or TRW)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/L-GN	3140	I	-	Battery Positive Voltage	1	2.5	RD/L-GN	3140	II	-
2	2.5	BK	1050	I	-	Ground	2	2.5	BK	1050	II	-

X320 Passenger Seat Harness to Body Harness





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 15509598

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 13937634

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	13327188	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13327190	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	E	1
V	Not Available	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	C	4
VI	Not Available	J-35616-42 (RD)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VII	13584548	J-35616-5 (PU)	J-38125-36	1-962915-3	15	E	1
VIII	Not Available	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available

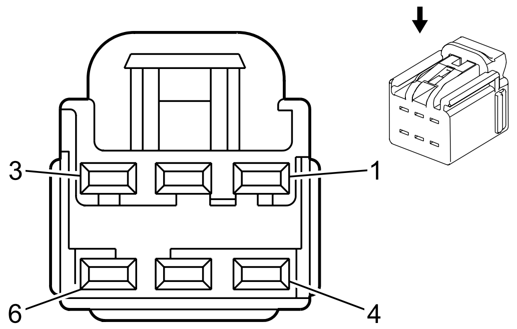
X320 Passenger Seat Harness to Body Harness

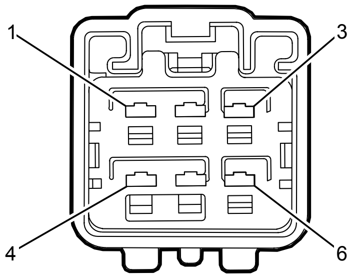
Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	2.5	RD/BN	1440	I	AG2	Battery Positive Voltage	2	2.5	RD/BN	1440	V	AG2
3-4	-	-	-	-	-	Not Occupied	3-4	-	-	-	-	-
5	0.35	OG/L-BU	5056	I	-	Passenger Seat Position Switch Signal	5	0.35	OG/D-BU	5056	III	-
6	0.35	OG/VT	1362	I	-	Passenger Seat Belt Switch Signal	6	0.35	OG/VT	1362	III	-
7	0.35	BK/OG	1361	I	-	Passenger Seat Belt Switch Low Reference	7	0.35	BK/OG	1361	III	-
8	0.75	BN/VT	2077	I	KA1	Driver Heated Seat Element Control	8	0.75	BN/VT	2077	IV	KA1
9	0.75	BN	2432	I	KA1	Driver Heated Back Element Control	9	0.75	BN	2432	IV	KA1
10	-	-	-	-	-	Not Occupied	10	-	-	-	-	-
11	4	BK	1250	I	-	Ground	11	4	BK	1250	I	-
12-13	-	-	-	-	-	Not Occupied	12-13	-	-	-	-	-
14	0.35	L-BU/RD	5612	I	-	Passenger Seat Belt Tension Sensor Voltage Reference	14	0.35	D-BU/RD	5612	III	-
15	0.35	VT/OG	5611	I	-	Passenger Seat Belt Tension Sensor Signal	15	0.35	VT/OG	5611	III	-
16	-	-	-	-	-	Not Occupied	16	-	-	-	-	-
17	0.75	RD/L-GN	6140	I	KA1 or KB6	Battery Positive Voltage	17	0.75	RD/L-GN	6140	IV	KA1 or KB6
18	-	-	-	-	-	Not Occupied	18	-	-	-	-	-
19	0.35	VT/WH	5908	I	KB6	Passenger Seat Vent Motor Control (1)	19	0.35	VT/WH	5908	III	KB6
20–22	-	-	-	-	-	Not Occupied	20–22	-	-	-	-	-
23	0.5	RD/BN	1140	VI	ULT	Battery Positive Voltage	23	0.5	RD/BN	1140	VII	ULT
24	0.5	BN/OG	3067	II	-	Passenger Side Impact Module Low Control	24	0.35	BN/OG	3067	I	-
25	0.5	GY/OG	3480	II	-	Passenger Seat Belt Anchor Pretensioner Low Control	25	0.35	GY/OG	3480	I	-
26	0.35	L-GN	5060	I	-	Low Speed GMLAN Serial Data	26	0.35	L-GN	5060	III	-
27	0.5	L-GN/D-BU	6133	IV	KA1	Local Interconnect Network Serial Data Bus 2	27	0.5	L-GN/D-BU	6133	IV	KA1
28-32	-	-	-	-	-	Not Occupied	28-32	-	-	-	-	-

33	0.5	OG/GY	3066	II	-	Passenger Side Impact Module High Control	33	0.35	OG/GY	3066	I	-
34	0.5	OG/BN	3479	II	-	Passenger Seat Belt Anchor Pretensioner High Control	34	0.35	OG/BN	3479	I	-
35	0.35	RD/L-GN	4440	I	-	Battery Positive Voltage	35	0.35	RD/L-GN	4440	III	-
36	0.35	BK/WH	2751	I	-	Signal Ground	36	0.5	BK/WH	2751	IV	-
37-45	-	-	-	-	-	Not Occupied	37-45	-	-	-	-	-
46	0.35	GY	7557	III	-	LED Ambient Lighting Control 1	46	0.35	WH/YE	7557	III	
47	0.75	RD/L-GN	5140	IV	KA1	Battery Positive Voltage	47	0.75	RD/L-GN	5140	IV	KA1
48	-	-	-	-	-	Not Occupied	48	-	-	-	-	-

X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness (without ULT)





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 7283-6466-40

Service Connector: 19153175

Description: 6-Way F Kaizen YESC Series (L-GY)

Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 7282-6466-40

Service Connector: 19153164

Description: 6-Way M Kaizen YESC Series (L-GY)

Terminal Part Information

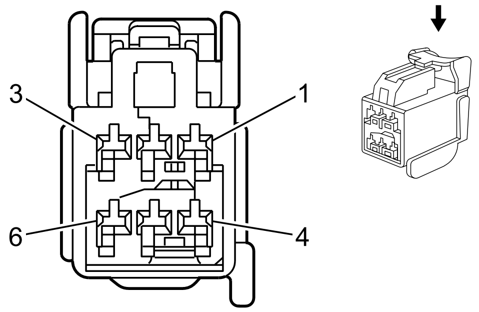
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-5 (PU)	Not Available	Not Available	Not Available	Not Available	Not Available

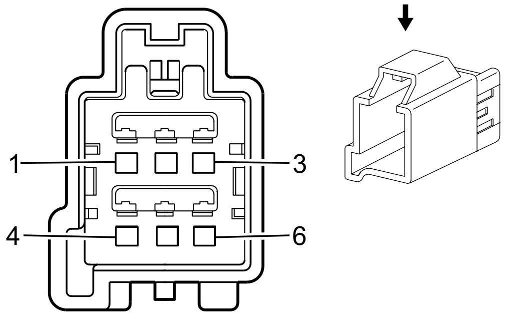
X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness (without ULT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	L-BU/YE	792	I	Y91	Passenger Power Seat Lumbar Motor Down Control	1	1.5	L-BU/YE	76	II	Y91
2	1.5	BN/YE	793	I	Y91	Passenger Power Seat Lumbar Motor Up Control	2	1.5	BN/YE	793	II	Y91
3	1.5	L-BU	211	I	-	Passenger Power Seat Lumbar Motor Forward	3	1.5	L-BU	211	II	-

						Control					
4	1.5	VT	210	I	-	Passenger Power Seat Lumbar Motor Rearward Control	4	1.5	VT	210	II	-
5	1.5	L-GN	76	I	-	Passenger Power Seat Recline Motor Forward	5	1.5	L-GN	76	II	-
6	1.5	L-BU/BN	77	I	-	Passenger Power Seat Recline Motor Rearward	6	1.5	BU/BN	77	II	-

X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (without ULT)





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 7283-6454-40

Service Connector: 89046849

Description: 6-Way F 1.5 Series (L-GY)

Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 7282-6454-40

Service Connector: 89046743

Description: 6-Way M 1.5 Series (L-GY)

Terminal Part Information

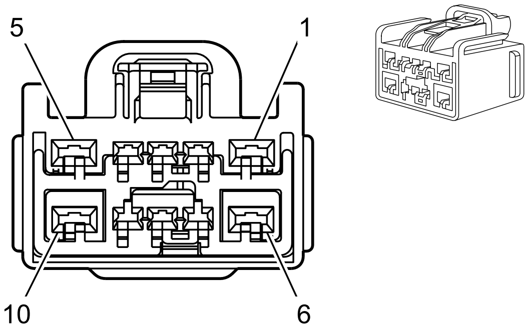
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

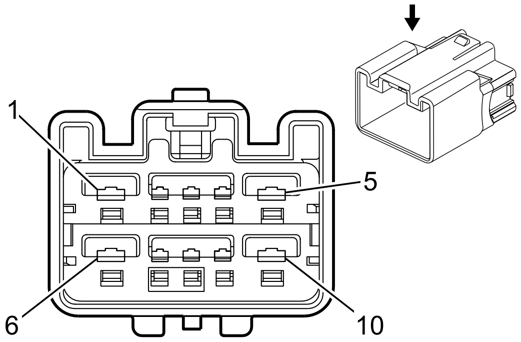
X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (without ULT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG/GY	3066	I	-	Passenger Side Impact Module High Control	1	0.5	OG/GY	3066	II	-
2	0.5	BN/OG	3067	I	-	Passenger Side Impact Module Low Control	2	0.5	BN/OG	3067	II	-
3	0.75	BK	1250	I	KA1 or KB6	Ground	3	0.75	BK	1250	II	KA1 or KB6
4	0.75 0.75	WH/BN RD/L-GN	2481 6140	I	KA1 KB6	Passenger Heated Back Element Supply	4	0.75 0.75	WH/BN RD/L-GN	2481 6140	II	KA1 KB6

	0.75	RD/L-GN	6140		KB6	Voltage Battery Positive Voltage		0.75	RD/L-GN	6140		KB6
5	0.35	VT/WH	5908	I	KB6	Passenger Seat Vent Motor Control (1)	5	0.35	VT/WH	5908	II	KB6
6	-	-	-	-	-	Not Occupied	6	-	-	-	-	-

X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (ULT)





Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: 13506592

Service Connector: 19167677

Description: 10-Way F 1.5, 2.8 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Passenger Seat Back

OEM Connector: 7282-6459-40

Service Connector: 89047070

Description: 10-Way M 1.5, 2.8 Kaizen Series (L-GY)

Terminal Part Information

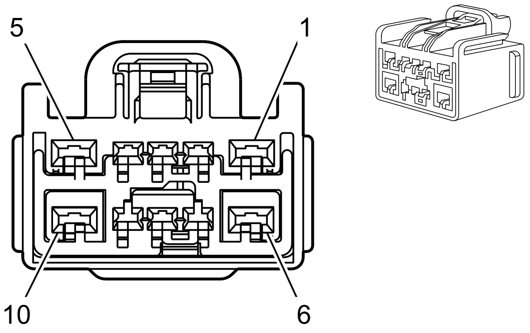
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

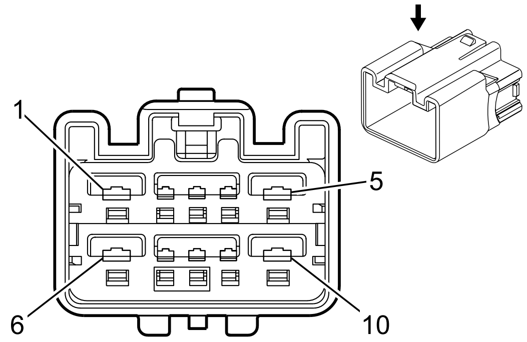
X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (ULT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	L-GN	76	I	-	Passenger Power Seat Recline Motor Forward	1	1.5	L-GN	76	III	-
2	0.5	OG/GY	3066	II	-	Passenger Side Impact Module High Control	2	0.5	OG/GY	3066	III	-
3	0.5	BN/OG	3067	II	-	Passenger Side Impact Module Low Control	3	0.5	BN/OG	3067	III	-

4	0.75	BK	1250	II	-	Ground	4	0.75	BK	1250	III	-
5	1.5	L-BU/BN	77	I	-	Passenger Power Seat Recline Motor Rearward	5	1.5	L-BU/BN	77	III	-
6	0.75	RD/L-GN	6140	I	-	Battery Positive Voltage	6	0.75	RD/L-GN	6140	III	-
7	0.35	VT/WH	5908	II	-	Passenger Seat Vent Motor Control (1)	7	0.35	VT/WH	5908	III	-
8-10	-	-	-	-	-	Not Occupied	8-10	-	-	-	-	-

X324 Sunroof Jumper Harness to Overhead Console Harness (CF5)





Connector Part Information

Harness Type: Sunroof

OEM Connector: 7283-6459-40

Service Connector: 19167677

Description: 10-Way F YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Overhead Console

OEM Connector: 13506926

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way M YESC Kaizen Series (L-GY)

Terminal Part Information

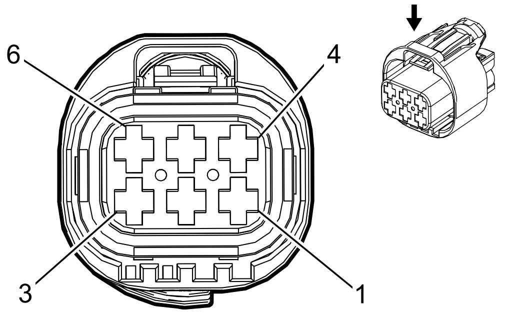
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-5 (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
IV	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

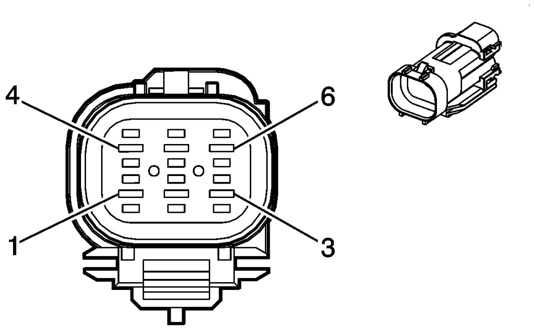
X324 Sunroof Jumper Harness to Overhead Console Harness (CF5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	0.35	L-GN/WH	100	I	-	Sunroof Switch Open Signal	2	0.35	L-GN/WH	100	II	-
3	0.35	BN/D-BU	2074	I	-	Sunroof Switch Express	3	0.35	BN/D-BU	2074	II	-

						Signal						
4	0.35	GY/VT	2075	I	-	Sunroof Switch Close Vent Signal	4	0.35	GY/VT	2075	II	-
5	-	-	-	-	-	Not Occupied	5	-	-	-	-	-
6	0.35	VT/BN	300	I	-	Run Ignition 3 Voltage	6	0.35	VT/YE	43	III	-
7	0.35	D-BU/WH	110	I	-	Sunroof Switch Close Signal	7	0.35	D-BU/WH	110	II	-
8	0.35	YE/VT	144	I	-	Sunroof Switch Open Vent Signal	8	0.35	YE/VT	144	II	-
9	0.35	VT/YE	43	I	-	Accessory Voltage	9	-	-	-	-	-
10	-	-	-	-	-	Not Occupied	10	-	-	-	-	-

X338 Body Harness to 3rd Row Seat Left Harness (AS8)





Connector Part Information

Harness Type: Body

OEM Connector: 10865192

Service Connector: 13584412

Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: 3rd Row Seat Left

OEM Connector: 1452324-1

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 2.8 Series, Sealed (BK)

Terminal Part Information

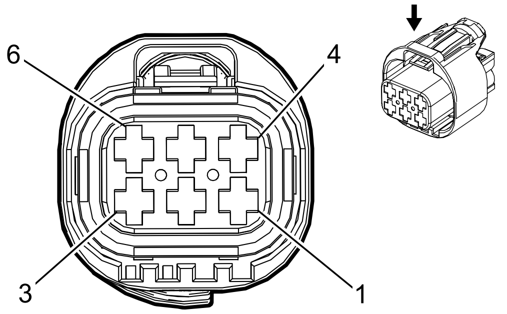
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-4A (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-5 (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
IV	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

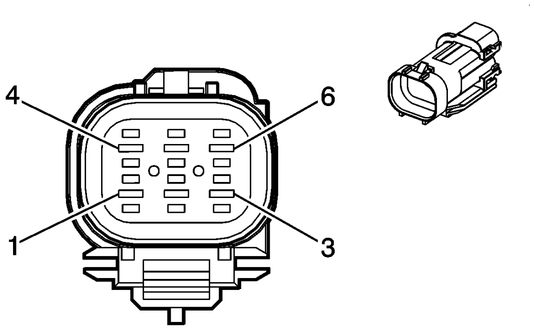
X338 Body Harness to 3rd Row Seat Left Harness (AS8)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/D-BU	1240	I	-	Battery Positive Voltage	1	2.5	RD/L-BU	1240	III	-
2	0.5	L-GN	4224	II		LH Third Row Seat Recline Rearward Signal	2	0.5	L-GN	901	IV	-
3	0.5	L-GN/BK	6811	II	-	Left Rear Seat Fold Tumble Signal	3	0.5	L-GN/BK	6811	IV	-

						Tumble Signal					
4	0.5	YE	4220	II		RH Third Row Seat Recline Rearward Signal	4	0.5	YE	902	IV	-
5	0.5	YE/BK	6810	II	-	Right Rear Seat Fold Tumble Signal	5	0.5	YE/BK	6810	IV	-
6	2.5	BK	1150	I	-	Ground	6	2.5	BK	1150	III	-

X340 3rd Row Seat Right Harness to 3rd Row Seat Left Harness (AS8)





Connector Part Information

Harness Type: 3rd Row Seat Right

OEM Connector: 13125598

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: 3rd Row Seat Left

OEM Connector: 1452324-2

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 2.8 Series, Sealed (BK)

Terminal Part Information

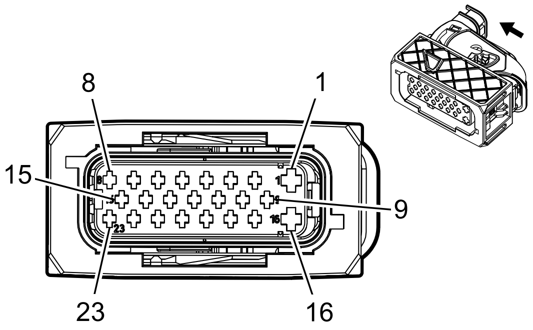
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-5 (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
IV	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

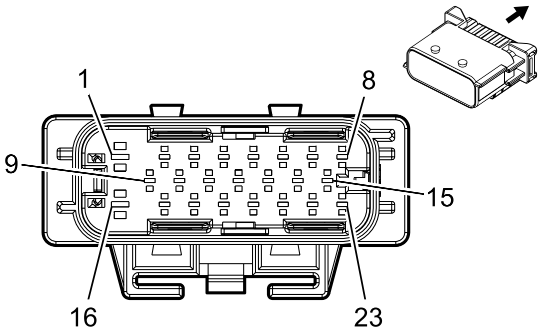
X340 3rd Row Seat Right Harness to 3rd Row Seat Left Harness (AS8)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	OG	4218	I	-	RH Third Row Seat Recline Rearward Control	1	1.5	OG	4218	III	-
2	0.35	WH/BK	4215	II	-	Seat Sensor Voltage Reference #2	2	0.35	WH/BK	4215	IV	-
3	1.5	RD/GY	4225	I	-	RH Third Row Seat	3	1.5	RD/GY	4225	III	-

						RH Third Row Seat Recline Forward Lock Actuator Control					
4	1.5	L-BU	4217	I	-	RH Third Row Seat Recline Motor Forward Control	4	1.5	L-BU	4217	III	-
5	0.35	WH/RD	4213	II	-	RH Third Row Seat Recline Position Sensor Signal	5	0.35	WH/RD	4213	IV	-
6	1.5	L-GN	4226	I	-	RH Third Row Seat Recline Rearward Lock Actuator Control	6	1.5	L-GN	4226	III	-

X348 Center Seat Harness to Body Harness (AZ3 without AVF)





Connector Part Information

Harness Type: Center Seat

OEM Connector: 13583382

Service Connector: Service by Harness - See Part Catalog

Description: 23-Way F 1.5 DSQ, 2.8 AST Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 13674783

Service Connector: 19303858

Description: 23-Way M 1.5 DSQ, 2.8 AST Series, Sealed (BK)

Terminal Part Information

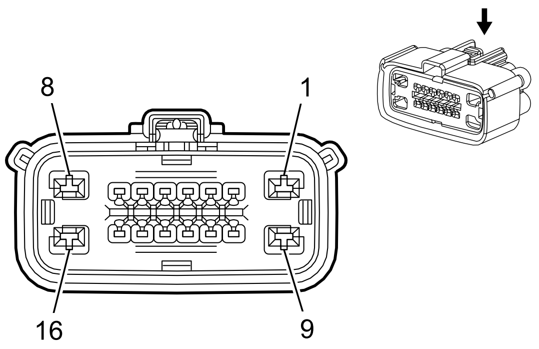
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13327188	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13327190	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

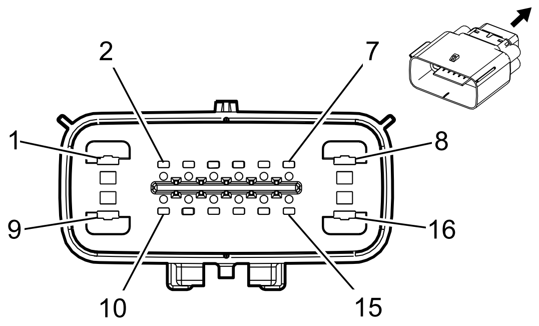
X348 Center Seat Harness to Body Harness (AZ3 without AVF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	RD/D-BU	840	I	-	Battery Positive Voltage	1	1.5	RD/D-BU	840	II	-
2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-
3	0.5	BK	5842	I	-	Auxiliary Audio Screen (2)	3	0.5	BK	5842	IV	-

4	0.35	GY	5839	I	-	Left Auxiliary Audio Signal (2)	4	0.35	GY	5839	III	-
5-7	-	-	-	-	-	Not Occupied	5-7	-	-	-	-	-
8	0.35	BK	-	I	-	-	8	-	-	-	-	-
9	0.75	BK	2550	I	-	Ground	9	0.75	BK	2550	IV	-
10	-	-	-	-	-	Not Occupied	10	-	-	-	-	-
11	0.35	L-GN	5841	I	-	Right Auxiliary Audio Signal (2)	11	0.35	L-GN	5841	III	-
12	0.35	D-BU	2060	I	-	Auxiliary Detection Signal	12	0.35	D-BU	2060	III	-
13-15	-	-	-	-	-	Not Occupied	13-15	-	-	-	-	-
16	1.5	BK	1250	I	-	Ground	16	1.5	BK	1250	II	-
17	-	-	-	-	-	Not Occupied	17	-	-	-	-	-
18	0.75	RD/VT	340	I	-	Battery Positive Voltage	18	0.75	RD/VT	340	IV	-
19	0.35	VT	5843	I	-	Auxiliary Audio Common Signal	19	0.35	VT	5843	III	-
20-23	-	-	-	-	-	Not Occupied	20-23	-	-	-	-	-

X348 Center Seat Harness to Body Harness (AZ3 with AVF)





Connector Part Information

Harness Type: Center Seat

OEM Connector: 55572154

Service Connector: 13587961

Description: 16-Way F 1.5, 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 13514509

Service Connector: 19303857

Description: 16-Way M 1.5, 2.8 Series, Sealed (BK)

Terminal Part Information

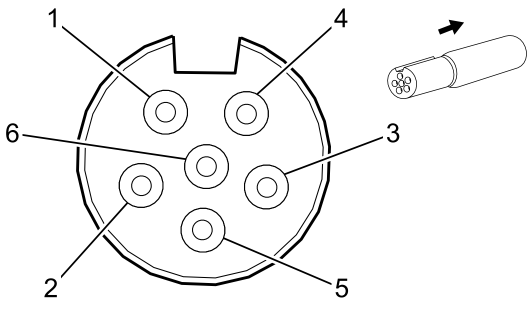
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	19329833	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19300435	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available
IV	13587410	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

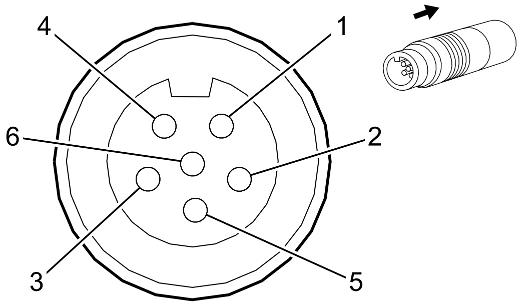
X348 Center Seat Harness to Body Harness (AZ3 with AVF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	VT/YE	143	I	-	Accessory Voltage	1	1.5	VT/YE	143	II	-
2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-
3	0.5	GY	5842	I	-	Auxiliary Audio Screen (2)	3	0.5	GY	5842	III	-

4	0.35	GY	5839	I	-	Left Auxiliary Audio Signal (2)	4	0.35	GY	5839	III	-
5	0.35	D-BU	2060	I	-	Auxiliary Detection Signal	5	0.35	D-BU	2060	III	-
6	0.75	BK	2550	I	-	Ground	6	0.75	BK	2550	IV	-
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-
8	1.5	BK	1250	I	-	Ground	8	1.5	BK	1250	II	-
9	1.5	VT/YE	243	I	-	Accessory Voltage	9	1.5	VT/YE	243	II	-
10	-	-	-	-	-	Not Occupied	10	-	-	-	-	-
11	0.35	L-GN	5841	I	-	Right Auxiliary Audio Signal (2)	11	0.35	L-GN	5841	III	-
12	0.35	VT	5843	I	-	Auxiliary Audio Common Signal	12	0.35	VT	5843	III	-
13	-	-	-	-	-	Not Occupied	13	-	-	-	-	-
14	0.75	RD/VT	340	I	-	Battery Positive Voltage	14	0.75	RD/VT	340	IV	-
15	-	-	-	-	-	Not Occupied	15	-	-	-	-	-
16	1.5	BK	1250	I	-	Ground	16	1.5	BK	1250	II	-

X371 Accessory Signal Harness 1A to Accessory Signal Harness 3A (AYE)





Connector Part Information

Harness Type: Accessory Signal Harness 1A

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BK with RD case)

Connector Part Information

Harness Type: Accessory Signal Harness 3A

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M (BK with RD case)

Terminal Part Information

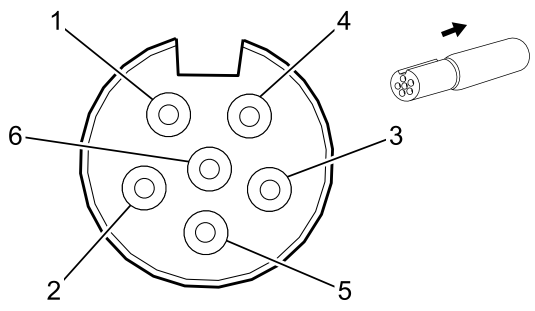
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

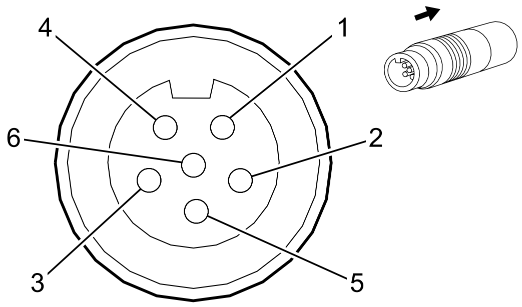
X371 Accessory Signal Harness 1A to Accessory Signal Harness 3A (AYE)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	RD	-	I	-	Ignition Voltage	1	-	RD	-	II	-
2	-	BK	-	I	-	Ground	2	-	BK	-	II	-
3	-	WH	-	I	-	Left Audio Signal B (+)	3	-	WH	-	II	-
4	-	RD	-	I	-	Right Audio Signal B (+)	4	-	RD	-	II	-
5	-	YE	-	I	-	DVD Video Signal B (+)	5	-	YE	-	II	-

6	-	BK	-	I	-	Audio/Video Common B (-)	6	-	BK	-	II	-

X372 Accessory Signal Harness 2B to Accessory Signal Harness 3B (AYE)





Connector Part Information

Harness Type: Accessory Signal Harness 2B

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BU with BK case)

Connector Part Information

Harness Type: Accessory Signal Harness 3B

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M (BU with BK case)

Terminal Part Information

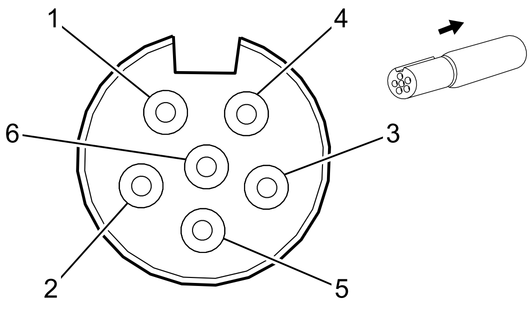
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

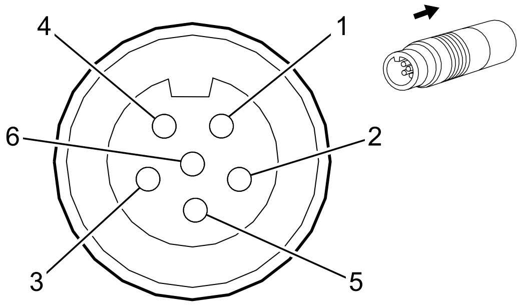
X372 Accessory Signal Harness 2B to Accessory Signal Harness 3B (AYE)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	RD	-	I	-	I2C Data	1	-	RD	-	II	-
2	-	BK	-	I	-	I2C Clock Signal	2	-	BK	-	II	-
3	-	WH	-	I	-	Left Audio Signal A (+)	3	-	WH	-	II	-
4	-	RD	-	I	-	Right Audio Signal A (+)	4	-	RD	-	II	-
5	-	YE	-	I	-	DVD Video Signal A (+)	5	-	YE	-	II	-

6	-	BK	-	I	-	Audio/Video Common A (-)	6	-	BK	-	II	-

X373 Accessory Signal Harness 2A to Accessory Signal Harness 3A (AYE)





Connector Part Information

Harness Type: Accessory Signal Harness 2A

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BK with WH case)

Connector Part Information

Harness Type: Accessory Signal Harness 3A

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M (BK with WH case)

Terminal Part Information

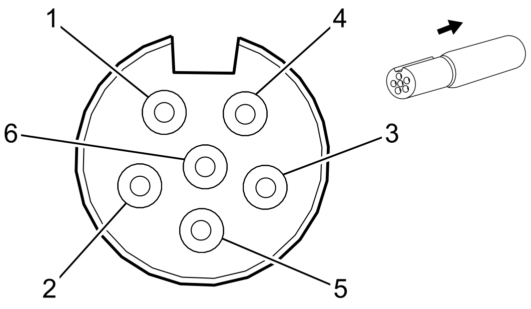
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

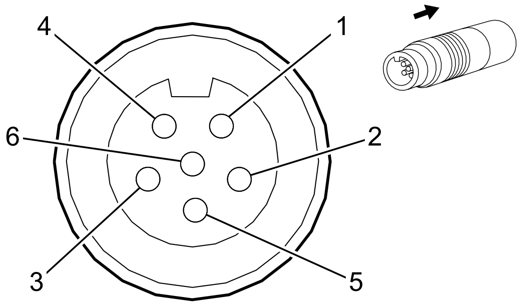
X373 Accessory Signal Harness 2A to Accessory Signal Harness 3A (AYE)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	RD	-	I	-	I2C Data	1	-	RD	-	II	-
2	-	BK	-	I	-	I2C Clock Signal	2	-	BK	-	II	-
3	-	WH	-	I	-	Left Audio Signal A (+)	3	-	WH	-	II	-
4	-	RD	-	I	-	Right Audio Signal A (+)	4	-	RD	-	II	-
5	-	YE	-	I	-	DVD Video Signal A (+)	5	-	YE	-	II	-

6	-	BK	-	I	-	Audio/Video Common A (-)	6	-	BK	-	II	-

X374 Accessory Signal Harness 1B to Accessory Signal Harness 3B (AYE)





Connector Part Information

Harness Type: Accessory Signal Harness 1B

OEM Connector: Not Available

Service Connector: Service by Harness — See Part Catalog

Description: 6-Way F (BK with BK case)

Connector Part Information

Harness Type: Accessory Signal Harness 3B

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M (BK with BK case)

Terminal Part Information

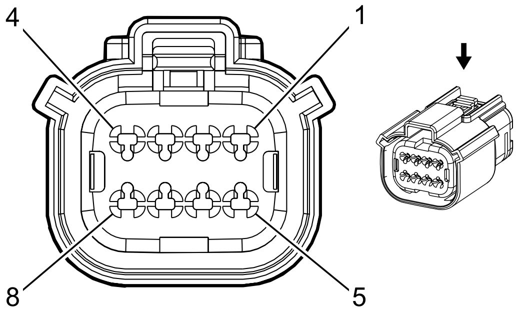
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

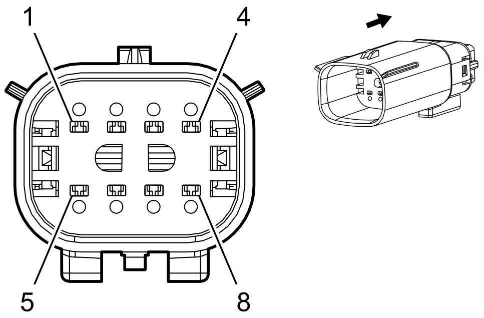
X374 Accessory Signal Harness 1B to Accessory Signal Harness 3B (AYE)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	RD	-	I	-	Ignition Voltage	1	-	RD	-	II	-
2	-	BK	-	I	-	Ground	2	-	BK	-	II	-
3	-	WH	-	I	-	Left Audio Signal B (+)	3	-	WH	-	II	-
4	-	RD	-	I	-	Right Audio Signal B (+)	4	-	RD	-	II	-
5	-	YE	-	I	-	DVD Video Signal B (+)	5	-	YE	-	II	-

6	-	BK	-	I	-	Audio/Video Common B (-)	6	-	BK	-	II	-

X378 Body Harness to 2nd Row Seat Jumper Harness (ATN or ATT)





Connector Part Information

Harness Type: Body

OEM Connector: 13654393

Service Connector: 13577527

Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: 2nd Row Seat Right

OEM Connector: 13503538

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

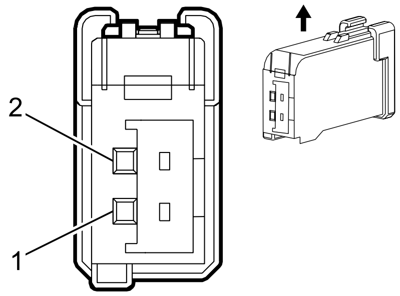
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

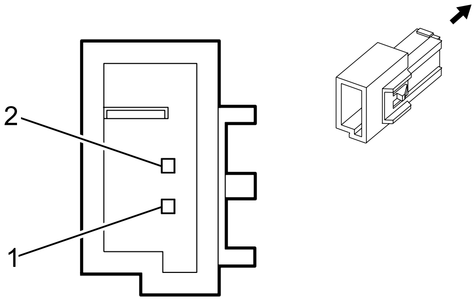
X378 Body Harness to 2nd Row Seat Jumper Harness (ATN or ATT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	RD/D-BU	1240	I	-	Battery Positive Voltage	1	0.75	RD	1240	II	-
2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-
3	0.75	L-GN/BN	2296	I	-	Right Rear Heated Seat Cushion Element Supply Voltage	3	0.75	L-GN	2296	II	-
4-5	-	-	-	-	-	Not Occupied	4-5	-	-	-	-	-

6	0.5	BN/WH	6809	I	-	Right Rear Seat Fold Tumble Control	6	0.5	BN	6809	II	-
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-
8	0.75	BK	1250	I	-	Ground	8	0.75	BK	1250	II	-

X379 Body Harness to 2nd Row Seat Jumper Harness (ATN or ATT)





Connector Part Information

Harness Type: Body

OEM Connector: 13595633

Service Connector: 13314093

Description: 2-Way F 0.64 Kaizen Series (BK)

Connector Part Information

Harness Type: Body Extension

OEM Connector: 13676029

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 0.64 Series (BK)

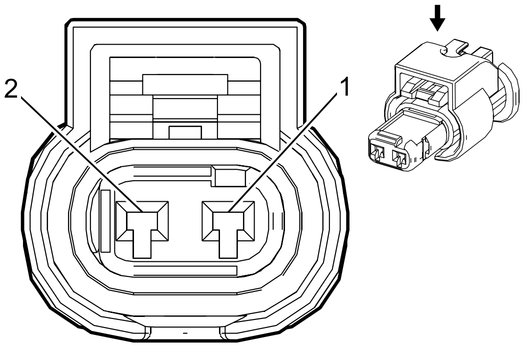
Terminal Part Information

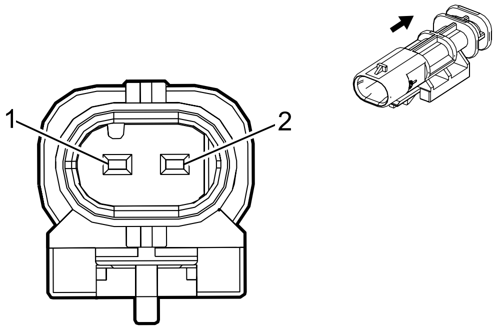
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-65B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

X379 Body Harness to 2nd Row Seat Jumper Harness (ATN or ATT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE/BK	5813	I	-	Park Enable Supply Voltage	1	0.5	YE/BK	5813	II	-
2	0.5	BN/WH	6809	I	-	Right Rear Seat Fold Tumble Control	2	0.5	BN/WH	6809	II	-

X380 Body Harness to Driver Roof Rail Air Bag Jumper





Connector Part Information

Harness Type: Body

OEM Connector: 13863037

Service Connector: 13587886

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (YE with BK Inner Connector)

Connector Part Information

Harness Type: Passenger Roof Rail Air Bag Jumper

OEM Connector: 13580142

Service Connector: Service by Component - See Part Catalog

Description: 2-Way M 1.2 MLK Series, Sealed (YE)

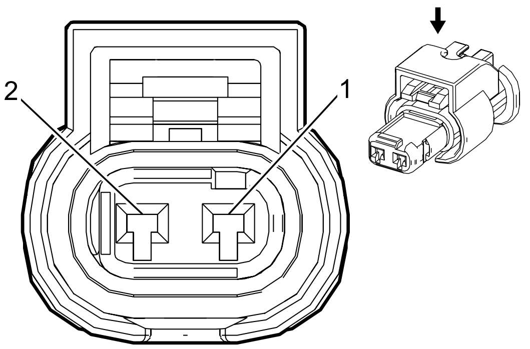
Terminal Part Information

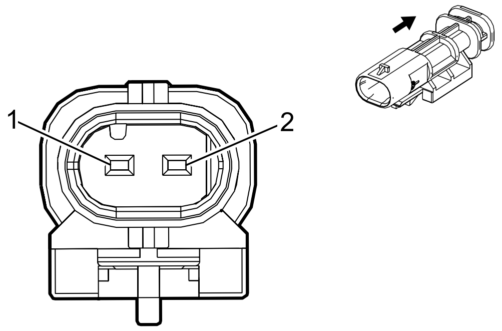
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X380 Body Harness to Driver Roof Rail Air Bag Jumper

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	OG/L-GN	5019	I	-	Left Front Head Curtain Module High Control	1	0.35 0.35	OG/TN OG/L-GN	5019 5019	II	without SWB SWB
2	0.35	VT/OG	5020	I	-	Left Front Head Curtain Module Low Control	2	0.35 0.35	YE/OG VT/OG	5020 5020	II	without SWB SWB

X390 Body Harness to Passenger Roof Rail Air Bag Jumper





Connector Part Information

Harness Type: Body

OEM Connector: 13863037

Service Connector: 13587886

Description: 2-Way F 1.2 Multiple Contact Point Series, Sealed (YE with BK Inner Connector)

Connector Part Information

Harness Type: Driver Roof Rail Air Bag Jumper

OEM Connector: 13580142

Service Connector: Service by Component - See Part Catalog

Description: 2-Way M 1.2 MLK Series, Sealed (YE)

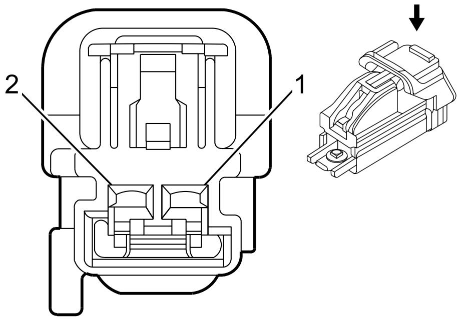
Terminal Part Information

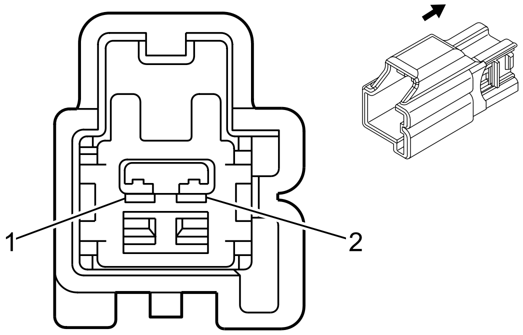
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-16 (L-GN)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X390 Body Harness to Passenger Roof Rail Air Bag Jumper

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	OG/GY	5021	I	-	Right Front Head Curtain Module High Control	1	0.35 0.35	OG/GN OG/GY	5021 5021	II	without SWB SWB
2	0.35	WH/OG	5022	I	-	Right Front Head Curtain Module Low Control	2	0.35 0.35	PU/OG WH/OG	5022 5022	II	without SWB SWB

X399 Instrument Panel Harness to Instrument Panel Harness





Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10846794

Service Connector: 88988504

Description: 2-Way F 1.5 YESC Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 10846798

Service Connector: 88988503

Description: 2-Way M 1.5 Series (L-GY)

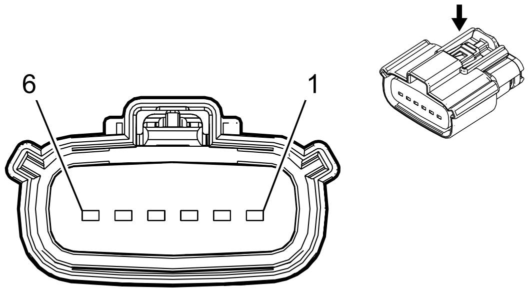
Terminal Part Information

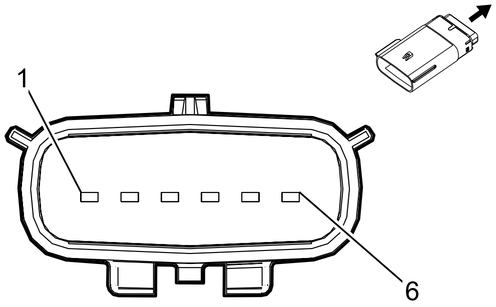
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

X399 Instrument Panel Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/VT	3998	I	-	MOST Serial Data (+)	1	0.5	GY/VT	3998	II	-
2	0.5	WH/L-GN	3997	I	-	MOST Serial Data (-)	2	0.5	WH/L-GN	3997	II	-

X410 Left Tail Lamp Jumper to Chassis Harness (X88)





Connector Part Information

Harness Type: Tail Lamp — Left

OEM Connector: 33471-0606

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis

OEM Connector: 15456940

Service Connector: 19303225 -

Description: 6-Way M 1.5 MX Series, Sealed (BK)

Terminal Part Information

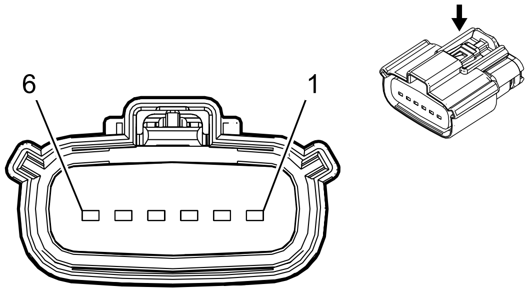
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

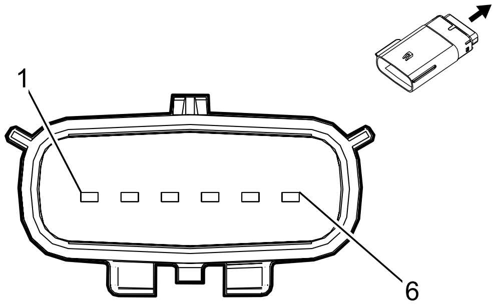
X410 Left Tail Lamp Jumper to Chassis Harness (X88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	PU	24	I	-	Backup Lamp Supply Voltage	1	0.5	L-GN/WH	24	II	-
2	0.5	BN	18	I	-	Left Rear Stop/Turn Lamp Supply Voltage	2	0.5	YE/D-BU	18	II	-
3	-	-	-	-	-	Not Occupied	3	-	-	-	-	-

4	0.75	RD	7542	I	T89	Left Rear Stop Lamp Supply Voltage	4	0.75	GY/YE	7542	III	T89
5	0.5	BU	709	I	-	Left Park Lamp Supply Voltage	5	0.5	VT/GY	709	II	-
6	0.75	BK	1750	I	-	Ground	6	0.75	BK	1750	III	-

X410 Left Tail Lamp Jumper to Chassis Harness (Z88)





Connector Part Information

Harness Type: Left Tail Lamp Jumper

OEM Connector: 33471-0606

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis

OEM Connector: 15456940

Service Connector: 19303225 -

Description: 6-Way M 1.5 MX Series, Sealed (BK)

Terminal Part Information

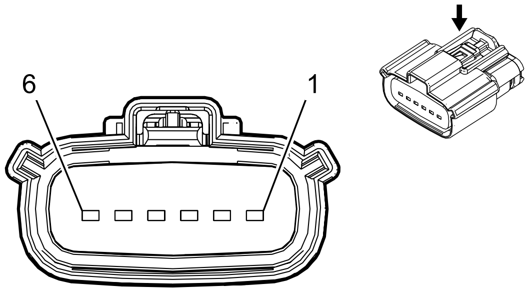
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

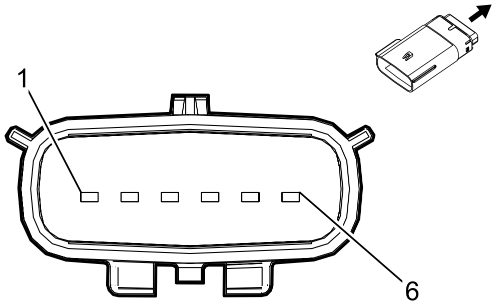
X410 Left Tail Lamp Jumper to Chassis Harness (Z88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	WH	24	I	-	Backup Lamp Supply Voltage	1	0.5	L-GN/WH	24	II	-
2	0.5	BN	18	I	-	Left Rear Stop/Turn Lamp Supply Voltage	2	0.5	YE/D-BU	18	II	-
3	0.5	D-BU	5356	I	-	Left Tail Lamp Outage Detection Signal	3	0.5	YE/BK	5356	II	-

4	0.75	D-GN	7542	I	-	Left Rear Stop Lamp Supply Voltage	4	0.75	GY/YE	7542	III	-
5	0.5	YE	709	I	-	Left Park Lamp Supply Voltage	5	0.5	VT/GY	709	II	-
6	0.75	BK	1750	I	-	Ground	6	0.75	BK	1750	III	-

X410 Left Tail Lamp Jumper to Chassis Harness (Z75)





Connector Part Information

- Harness Type: Left Tail Lamp
- OEM Connector: 33471-0606
- Service Connector: Service by Harness - See Part Catalog
- Description: 6–Way F 1.5 Series, Sealed (BK)

Connector Part Information

- Harness Type: Chassis
- OEM Connector: 15456940
- Service Connector: 19303225
- Description: 6-Way M 1.5 MX Series, Sealed (BK)

Terminal Part Information

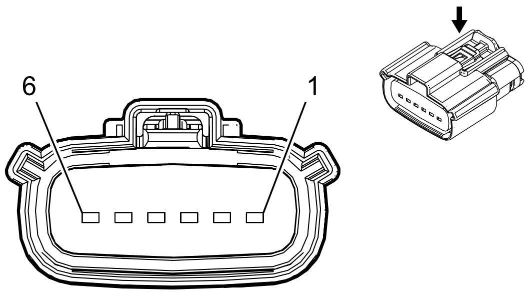
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13587412	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	13587410	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

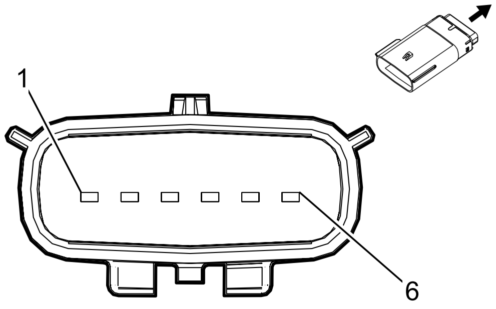
X410 Left Tail Lamp Jumper to Chassis Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	24	I	-	Backup Lamp Supply Voltage	1	0.5	L-GN/WH	24	II	-
2	0.5	RD	18	I	-	Left Rear Stop/Turn Lamp Supply Voltage	2	0.5	YE/D-BU	18	II	-
3	0.5	OG	5356	I	-	Left Tail Lamp Outage Detection Signal	3	0.5	YE/BK	5356	II	-

4	0.75	YE	7542	I	-	Left Rear Stop Lamp Supply Voltage	4	0.75	GY/YE	7542	III	-
5	0.5	GN	709	I	-	Left Park Lamp Supply Voltage	5	0.5	VT/GY	709	II	-
6	0.75	BK	1750	I	-	Ground	6	1	BK	1750	III	

X420 Right Tail Lamp Jumper to Chassis Harness (X88)





Connector Part Information

Harness Type: Tail Lamp — Right

OEM Connector: 33471-0606

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis

OEM Connector: 15456940

Service Connector: 19303225 -

Description: 6-Way M 1.5 MX Series, Sealed (BK)

Terminal Part Information

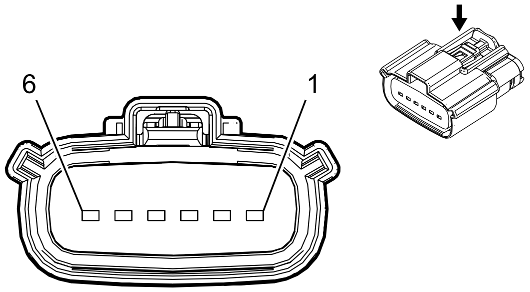
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

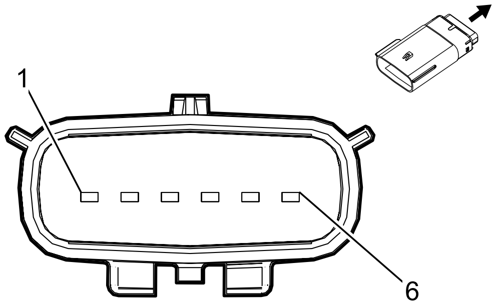
X420 Right Tail Lamp Jumper to Chassis Harness (X88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	PU	24	I	-	Backup Lamp Supply Voltage	1	0.5	L-GN/WH	24	II	-
2	0.5	BN	19	I	-	Right Rear Stop/Turn Lamp Supply Voltage	2	0.5	BN/L-GN	19	II	-
3	-	-	-	-	-	Not Occupied	3	-	-	-	-	-

4	0.75	RD	7541	I	T89	Right Rear Stop Lamp Supply Voltage	4	0.75	WH/YE	7541	III	T89
5	0.5	BU	309	I	-	Right Park Lamp Supply Voltage	5	0.5	GY/BN	309	II	-
6	0.75	BK	2150	I	-	Ground	6	0.75	BK	2150	III	-

X420 Right Tail Lamp Jumper to Chassis Harness (Z88)





Connector Part Information

Harness Type: Left Tail Lamp Jumper

OEM Connector: 33471-0606

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis

OEM Connector: 15456940

Service Connector: 19303225 -

Description: 6-Way M 1.5 MX Series, Sealed (BK)

Terminal Part Information

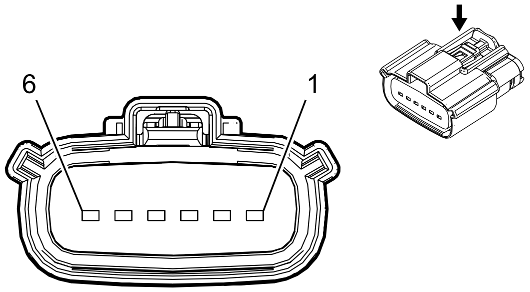
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

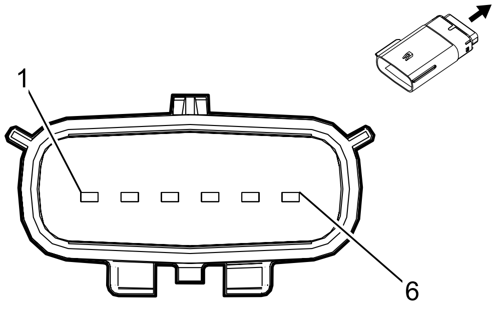
X420 Right Tail Lamp Jumper to Chassis Harness (Z88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	WH	24	I	-	Backup Lamp Supply Voltage	1	0.5	L-GN/WH	24	II	-
2	0.5	BN	19	I	-	Right Rear Stop/Turn Lamp Supply Voltage	2	0.5	BN/L-GN	19	II	-
3	0.5	D-BU	5357	I	-	Right Tail Lamp Outage Detection Signal	3	0.5	VT/YE	5357	II	-

4	0.75	D-GN	7541	I	-	Right Rear Stop Lamp Supply Voltage	4	0.75	WH/YE	7541	III	-
5	0.5	YE	309	I	-	Right Park Lamp Supply Voltage	5	0.5	GY/BN	309	II	-
6	0.75	BK	2150	I	-	Ground	6	0.75	BK	2150	III	-

X420 Right Tail Lamp Jumper to Chassis Harness (Z75)





Connector Part Information

Harness Type: Right Tail Lamp

OEM Connector: 33471-0606

Service Connector: Service by Harness - See Part Catalog

Description: 6–Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis

OEM Connector: 15456940

Service Connector: 19303225

Description: 6-Way M 1.5 MX Series, Sealed (BK)

Terminal Part Information

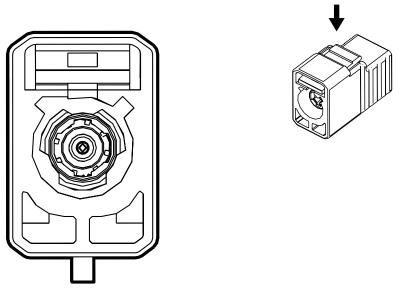
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13587412	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	13587410	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

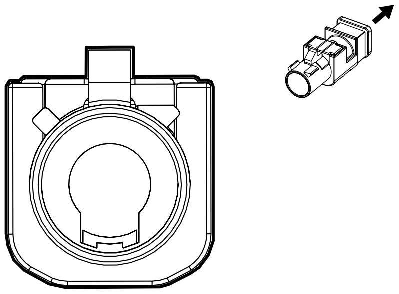
X420 Right Tail Lamp Jumper to Chassis Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	24	I	-	Backup Lamp Supply Voltage	1	0.5	L-GN/WH	24	II	-
2	0.5	RD	19	I	-	Right Rear Stop/Turn Lamp Supply Voltage	2	0.5	BN/L-GN	19	II	-
3	0.5	OG	5357	I	-	Right Tail Lamp Outage Detection Signal	3	0.5	VT/YE	5357	II	-

4	0.75	YE	7541	I	-	Right Rear Stop Lamp Supply Voltage	4	0.75	WH/YE	7541	III	-
5	0.5	GN	309	I	-	Right Park Lamp Supply Voltage	5	0.5	GY/BN	309	II	-
6	0.75	BK	2150	I	-	Ground	6	0.75	BK	2150	III	-

X421 Headliner Harness COAX to Antenna Jumper Harness COAX





Connector Part Information

Harness Type: Antenna Jumper COAX

OEM Connector: 13581683

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way F Coax (BK)

Connector Part Information

Harness Type: Headliner COAX

OEM Connector: 13581673

Service Connector: Service by Cable — See Part Catalog

Description: 1-Way M Coax (BK)

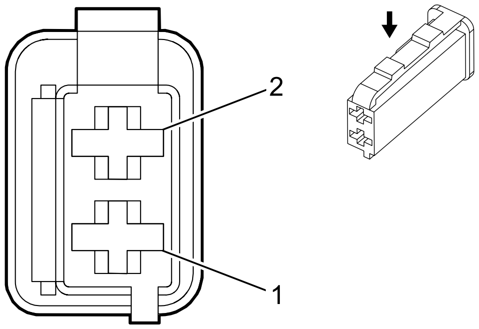
Terminal Part Information

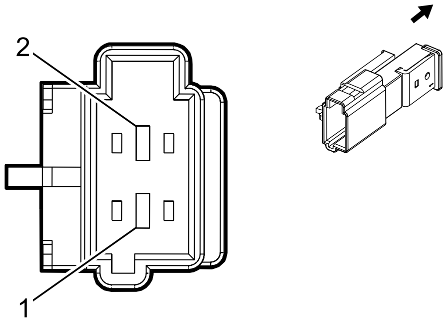
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X421 Headliner Harness COAX to Antenna Jumper Harness COAX

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	COAX	—	I	—	Antenna RF Signal	—	—	COAX	—	I	—

X485 CHMSL Jumper Harness to Body Harness





Connector Part Information

Harness Type: CHMSL

OEM Connector: 13670097

Service Connector: 13580951

Description: 2-Way F 1.6 Timer Series (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 13662506

Service Connector: 13574780

Description: 2-Way M 1.6 Timer Series (BK)

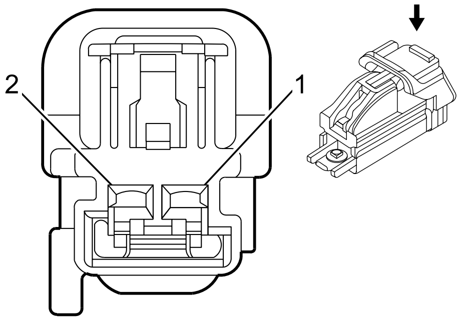
Terminal Part Information

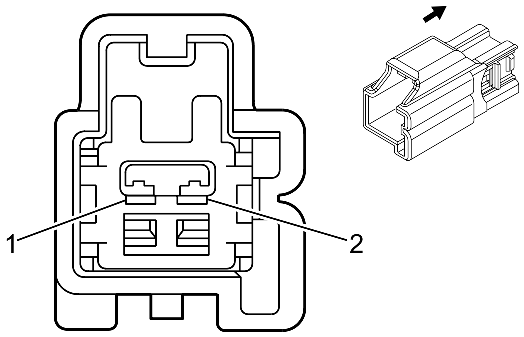
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available

X485 CHMSL Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/WH	5065	I	-	Stop Lamp Relay Coil Supply Voltage	1	0.5	VT/WH	5065	II	-
2	1	BK	1450	I	-	Ground	2	1	BK	1450	II	-

X486 Body Harness to Rear Dome Lamp Jumper Harness (without SWB)





Connector Part Information

Harness Type: Body

OEM Connector: 10846794

Service Connector: 88988504

Description: 2-Way F 1.5 YESC Series (L-GY)

Connector Part Information

Harness Type: Rear Dome Lamp Jumper

OEM Connector: 10846798

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 1.5 Series (L-GY)

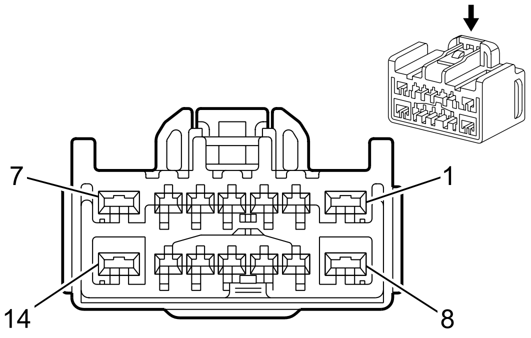
Terminal Part Information

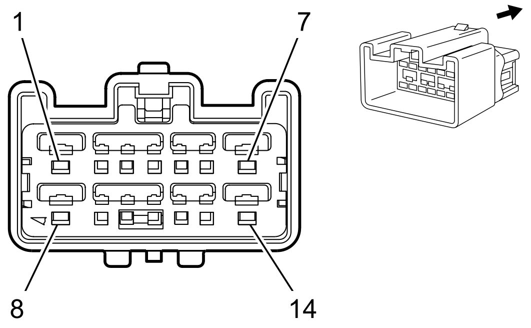
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

X486 Body Harness to Rear Dome Lamp Jumper Harness (without SWB)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY	157	I	-	Interior Lamp Control	1	0.5	GY	157	I	-
2	0.5	BK	1450	II	-	Ground	2	0.5	BK	1450	I	-

X487 Body Harness to Auxiliary HVAC Jumper Harness





Connector Part Information

Harness Type: Body

OEM Connector: 10847017

Service Connector: 88956524

Description: 14-Way F Hybrid Series (L-GY)

Connector Part Information

Harness Type: Rear HVAC Jumper

OEM Connector: 89047433

Service Connector: 88956523

Description: 14-Way M Hybrid Series (L-GY)

Terminal Part Information

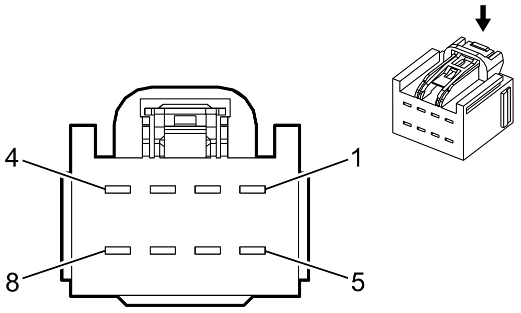
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575295	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	13575809	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	13575836	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
IV	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

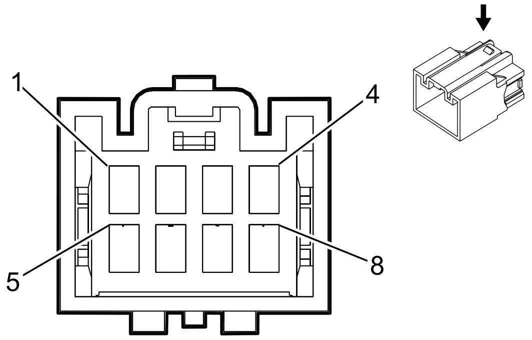
X487 Body Harness to Auxiliary HVAC Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/GY	1740	I	-	Battery Positive Voltage	1	2.5	RD/GY	1740	IV	-
2	0.35	L-GN/WH	5729	II	-	Rear Mode Motor Supply Voltage	2	0.35	WH/OG	5729	IV	-
3	0.35	BK/L-GN	5730	II	-	Rear Mode Motor Low	3	0.35	BK/L-GN	5730	IV	-

						Reference						
4	0.35	GY/RD	598	II	-	5 Volt Reference	4	0.35	GY/RD	598	IV	-
5	0.35	GY	2599	II	-	Rear Mode Motor Signal	5	0.35	GY	2599	IV	-
6	0.35	WH/BN	2775	II	-	Rear Air Temperature Motor Control	6	0.35	GY	2775	IV	-
7	0.35	BN	404	III	-	Upper Air Temperature Sensor Signal	7	0.35	BN	404	IV	-
8	-	-	-	-	-	Not Occupied	8	-	-	-	-	-
9	0.35	L-GN/BK	2211	II	-	Rear Blower Motor Speed Control	9	0.35	L-GN/BK	2211	IV	-
10	0.35	BN/BK	405	II	-	Lower Air Temperature Sensor Signal	10	0.35	BK	405	IV	-
11	0.35	BK/YE	407	II	-	Sensor Low Reference	11	0.35	BK/YE	407	IV	-
12	0.35	GY/D-BU	2145	II	-	Passenger Air Temperature Switch Signal	12	0.35	GY/D-BU	2145	IV	-
13	0.35	GY	2614	II	-	Rear Air Temperature Door Control	13	0.35	GY	2614	IV	-
14	-	-	-	-	-	Not Occupied	14	-	-	-	-	-

X490 Body Harness to Body Harness





Connector Part Information

Harness Type: Body

OEM Connector: 10847011

Service Connector: 13581036

Description: 8-Way F 2.8 Series (L-GY)

Connector Part Information

Harness Type: Body

OEM Connector: 13506919

Service Connector: 19329824

Description: 8-Way M 2.8 YESC Series (L-GY)

Terminal Part Information

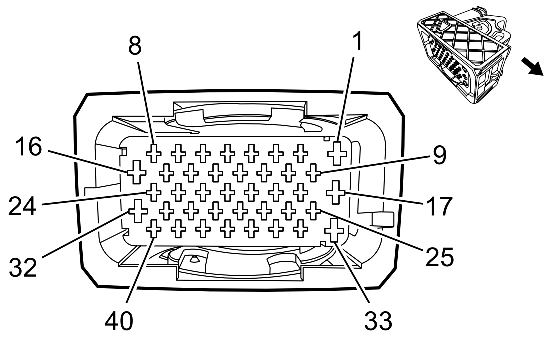
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-5 (PU)	Not Available	Not Available	Not Available	Not Available	Not Available

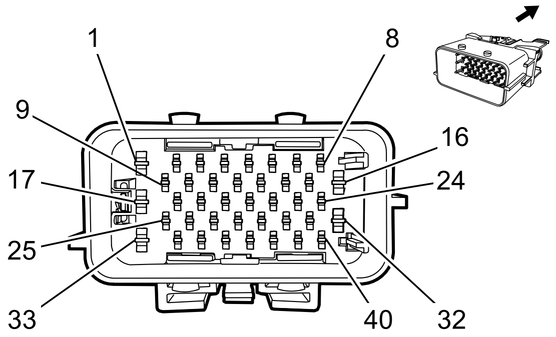
X490 Body Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BN/VT	293	I	-	Rear Defog Element Supply Voltage	1	2.5	BN/VT	293	II	-
2	0.5	D-BU/WH	6128	I	-	Rear Closure Unlatch Motor Unlatch Control	2	0.5	D-BU/WH	6128	II	-
3	0.5	D-BU/YE	6795	I	-	Lift Glass/Trunk Motor Release Control 2	3	0.5	D-BU/YE	6795	II	-
4	2.5	RD/GY	1740	I	-	Battery Positive Voltage	4	2.5	RD/GY	1740	II	-

5	0.5	RD/D-BU	840	I	-	Battery Positive Voltage	5	0.5	RD/D-BU	840	II	-
6	3	RD/GY	7040	I	-	Battery Positive Voltage	6	3	RD/GY	7040	II	-
7	0.75	RD/YE	3040	I	-	Battery Positive Voltage	7	0.75	RD/YE	3040	II	-
8	1.5	RD/D-BU	6040	I	-	Battery Positive Voltage	8	1.5	RD/D-BU	6040	II	-

X495 Body Harness to Rear Bumper Harness





Connector Part Information

Harness Type: Body

OEM Connector: 13603185

Service Connector: 13576549

Description: 40-Way F 1.5, 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Rear Bumper

OEM Connector: 13603208

Service Connector: Service by Harness - See Part Catalog

Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13580830	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13578874	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	13588058	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13582248	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	19300450	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VI	13575389	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VII	13584470	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VIII	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

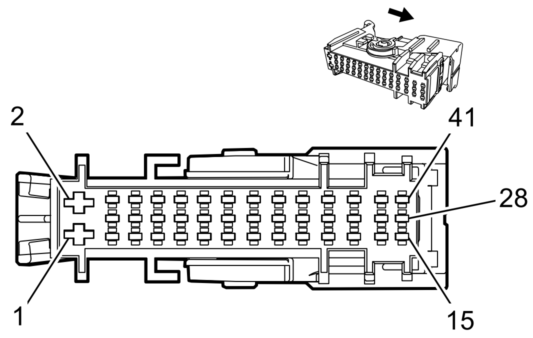
X495 Body Harness to Rear Bumper Harness

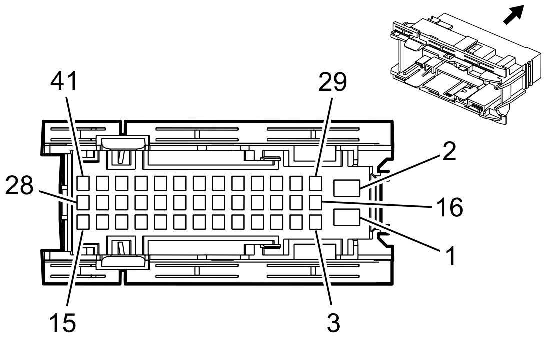
Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	0.5	BN/WH	2374	I	UD5 or UD7	Object Sensor Supply Voltage	1	0.5	BN/WH	2374	VII	UD5 or UD7
2	0.5	YE	2375	III	UD5 or UD7	Left Rear Corner Object Sensor Signal	2	0.5	YE	2375	VII	UD5 or UD7
3	0.5	YE/D-BU	2376	III	UD5 or UD7	Left Rear Middle Object Sensor Signal	3	0.5	YE/D-BU	2376	VII	UD5 or UD7
4	0.5	YE/VT	2378	III	UD5 or UD7	Right Rear Corner Object Sensor Signal	4	0.5	YE/VT	2378	VII	UD5 or UD7
5	0.5	YE/WH	2377	III	UD5 or UD7	Right Rear Middle Object Sensor Signal	5	0.5	YE/WH	2377	VII	UD5 or UD7
6	0.5	BK/GY	2379	III	UD5 or UD7	Object Sensor Low Reference	6	0.5	BK/GY	2379	VII	UD5 or UD7
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-
8	0.75	BK	1450	II	TC2, T79, UKC or UVZ	Ground	8	0.75	BK	1450	VIII	TC2, T79, UKC or UVZ
9	0.35	BN/VT	3809	IV	UVZ	Front Object Sensor Supply Voltage (1)	9	0.5	BN/VT	3809	VII	UVZ
10	-	-	-	-	-	Not Occupied	10	-	-	-	-	-
11	0.5	D-BU/VT	3813	II	UVZ	High Speed GMLAN Serial Data (+) (4)	11	0.5	D-BU/VT	3813	VII	UVZ
12	0.5	WH	3811	II	UVZ	High Speed GMLAN Serial Data (-) (4)	12	0.5	WH	3811	VII	UVZ
13	0.5	BN/L-GN	3568	III	ATH	Passive Entry Rear Closure Antenna Signal Hi	13	0.5	BN/L-GN	3568	VII	ATH
14	0.5	L-GN/GY	3569	III	ATH	Passive Entry Rear Closure Antenna Signal Lo	14	0.5	L-GN/GY	3569	VII	ATH
15	0.35	GY/YE	5853	IV	UKC	Driver Side Object Detection LED Signal (1)	15	0.35	GY/YE	5853	VI	UKC
16	0.35	GY	5861	I	UKC	Passenger Side Object Detection LED Signal (1)	16	0.35	GY	5861	VI	UKC
17	0.5	L-GN	5060	V	UKC	Low Speed GMLAN Serial Data	17	0.5	L-GN	5060	VII	UKC
18	0.5	L-GN/BN	4118	II	TC2	Linear Interconnect Network Bus 18	18	0.5	L-GN/BN	4118	VII	TC2
19	0.5	D-BU/VT	3813	III	UVZ	High Speed GMLAN Serial Data (+) (4)	19	0.5	D-BU/VT	3813	VII	UVZ
20	0.5	WH	3811	III	UVZ	High Speed GMLAN Serial Data (-) (4)	20	0.5	WH	3811	VII	UVZ
21	-	-	-	-	-	Not Occupied	21	-	-	-	-	-

21	-	-	-	-	-	Not Occupied	21	-	-	-	-	-
22	0.75	RD/L-GN	3140	II	TC2 or UKC	Battery Positive Voltage	22	0.5	RD/L-GN	3140	VII	TC2 or UKC
23	0.5	YE/GY	122	IV	T79	Rear Fog Lamp Supply Voltage	23	0.5	YE/GY	122	VII	T79
24-40	-	-	-	-	-	Not Occupied	24-40	-	-	-	-	-

X500 Driver Door Harness to Body Harness





Connector Part Information

Harness Type: Driver Door

OEM Connector: 13600509

Service Connector: Service by Harness - See Part Catalog

Description: 41-Way F 4.8 TIMER/DSQ 1.5 Series

Connector Part Information

Harness Type: Body

OEM Connector: 13946876

Service Connector: 13587760

Description: 41-Way M 1.5, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	13582220	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13575556	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	13327176	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13327174	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13575706	J-35616-42 (RD)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VIII	13578869	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X500 Driver Door Harness to Body Harness

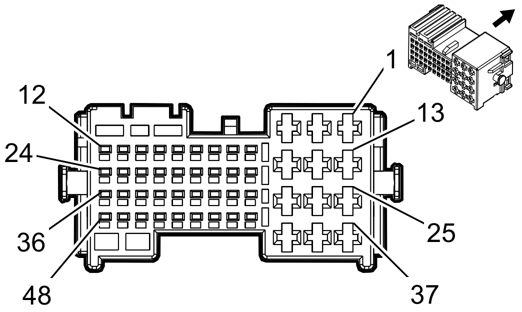
Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

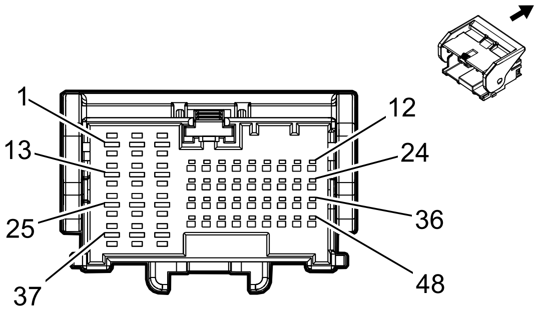
				ID							ID	
1	2.5	RD/D-BU	1842	I	-	Battery Positive Voltage	1	2.5	RD/D-BU	1842	III	-
2	4	BK	1150	I	-	Ground	2	4	BK	1150	VII	-
3	0.5	GY/WH	5996	II	DL3 or DR4	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	3	0.5	GY/L-GN	5996	V	DL3 or DR4
4	0.35 0.35	BK/WH WH	2551 3398	II	UVH without A45	Signal Ground Co-Driver Mirror Motor Common Control	4	0.35 0.35	WH BK/WH	3398 2551	VI	UVH without A45
5	0.35	YE/BK	1690	II	DD8	Automatic Day/Night Mirror Signal	5	0.35	YE/WH	1690	VI	DD8
6	0.35	BK/YE	1691	II	DD8	Automatic Day/Night Mirror Low Reference	6	0.35	BK/YE	1691	VI	DD8
7	0.35 0.5	D-BU/L-GN WH/L-GN	614 3412	II	A45 DL3 or DR4 without A45	Memory Seat Switch Set Signal Driver Mirror Motor Fold In Control	7	0.35 0.5	D-BU/L-GN WH/L-GN	614 3412	V	A45 DL3 or DR4 without A45
8	0.35 0.5	WH GY/WH	615 3411	II	A45 DL3 or DR4 without A45	Memory Seat Switch Signal (1) Driver Mirror Motor Fold Out Control	8	0.35 0.5	WH GY/WH	615 3411	V	A45 DL3 or DR4 without A45
9	0.75	YE/GY	1956	II	UQH	Left Front Tweeter Speaker (-)	9	0.75	YE/GY	1956	V	UQH
10	1	D-BU	201	II	-	Left Front Speaker (+) (1)	10	1	D-BU	201	IV	-
11	0.5	WH/BN	6201	II	UVH	Camera Supply Voltage	11	0.5	WH/BN	6201	V	UVH
12	0.35	WH/L-GN	2628	II	UVH	Left Side Vision Camera Video Signal (+)	12	0.35	WH/L-GN	2628	VI	UVH
13	0.35	GY/L-GN	2625	II	UVH	Left Side Vision Camera Video Signal (-)	13	0.35	GY/L-GN	2625	VI	UVH
14	0.35	OG/L-GN	2132	II	-	Left Front Side Impact Sensing Module Signal	14	0.35	OG/L-GN	2132	VI	-
15	0.35	BK/OG	6628	II	-	Left Front Side Impact Sensing Module Low Reference	15	0.35	BK/OG	6628	VI	-
16	0.35	WH	6816	II	-	Indicator Dimming Control	16	0.35	WH	6816	V	-
17	0.35	BN/WH	781	II	-	Driver Door Lock Switch Unlock Signal	17	0.35	BN/WH	781	VI	-
18	0.35	BN/YE	780	II	-	Driver Door Lock Switch Lock Signal	18	0.35	BN/YE	780	VI	-
19	0.75	BK/BN	294	II	-	Door Lock Actuator Unlock Control	19	0.75	BN/YE	294	V	-

20	0.75	GY	5911	II	-	Door Lock Actuator Lock Control 2	20	0.75	GY	5911	V	-
21	0.35	BK/D-BU	5978	II	-	Memory Switch Low Reference	21	0.35	BK/D-BU	5978	VI	-
22	0.75	YE/D-BU	1856	II	UQH	Left Front Tweeter Speaker (+)	22	0.75	YE/D-BU	1856	V	UQH
23	1	BN/D-BU	118	II	-	Left Front Speaker Signal (-) (1)	23	1	BN/D-BU	118	V	-
24	0.35	WH/YE	3574	II	BTM	Driver Door Open Switch Signal	24	0.35	WH/YE	3574	VIII	BTM
25	0.35	L-GN/WH	3570	II	ATH	Driver Door Handle Switch Signal	25	0.35	L-GN/WH	3570	VIII	ATH
26	0.35	Bare	2624	II	UVH	Left Side Vision Camera Video Drain Wire	26	0.35	Bare	1124	VI	UVH
27	0.35	VT/GY	3561	II	ATH	Passive Entry Driver Door Antenna Signal Lo	27	0.35	VT/GY	3561	VIII	ATH
28	0.35	VT	3560	II	ATH	Passive Entry Driver Door Antenna Signal Hi	28	0.35	VT	3560	VIII	ATH
29	0.35	YE	6817	II	-	LED Backlight Dimming Control	29	0.35	YE	6817	VI	-
30	0.35	WH/YE	7557	II	-	LED Ambient Lighting Control 1	30	0.35	WH/YE	7557	VI	-
31	0.5	BN/YE	2267	II	DL3 or DR4	Mirror Heating Element Supply Voltage	31	0.5	BN/YE	2267	V	DL3 or DR4
32	0.35	GY	5697	II	-	Child Lockout Indicator	32	0.35	GY	5697	VI	-
33	0.5	L-GN/YE	6134	II	-	Linear Interconnect Network Bus 3	33	0.5	L-GN/YE	6134	V	-
34	0.5	L-GN/WH	7530	II	A45	Linear Interconnect Network Bus 8	34	0.5	L-GN/WH	7530	V	A45
35	0.35	BN/RD	3265	II	-	Child Security Lock Switch Signal	35	0.35	YE/BN	3265	VI	-
36	0.5	L-GN/BK	3396	II	without A45	Co-Driver Mirror Motor Right (+) Left (-) Control	36	0.5	L-GN/BK	3396	VI	without A45
37	0.35	GY/YE	5853	II	UKC	Driver Side Object Detection LED Signal (1)	37	0.35	GY/YE	5853	VI	UKC
38	0.5	YE/VT	3397	II	without A45	Co-Driver Mirror Motor Up (+) Down (-) Control	38	0.5	YE/VT	3397	VI	without A45
39	0.75	BN	5910	II	UTT	Door Double Lock Actuator Lock Control	39	0.75	BN	5910	V	UTT
40	0.5	RD/VT	1940	II	-	Battery Positive Voltage	40	0.35	RD/VT	1940	V	-
41	0.5	D-BU/WH	1314	II	DL3 or DR4	Left Front Turn Signal Lamp Supply Voltage	41	0.75	D-BU/WH	1314	V	DL3 or DR4

						Lamp Supply Voltage						

X505 Driver Door Harness to Driver Door Trim Harness





Connector Part Information

Harness Type: Driver Door

OEM Connector: 13889713

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.2 MCON, 2.8 MCP Series

Connector Part Information

Harness Type: Driver Door Trim

OEM Connector: 15512031

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way M 1.2 MCON, 2.8 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-5 (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
IV	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

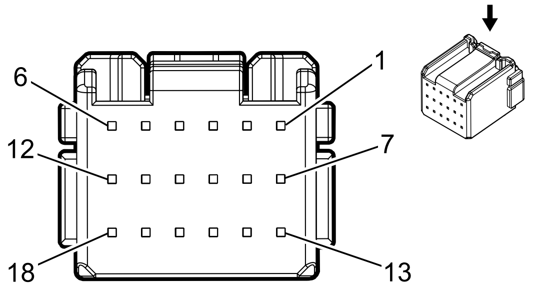
X505 Driver Door Harness to Driver Door Trim Harness

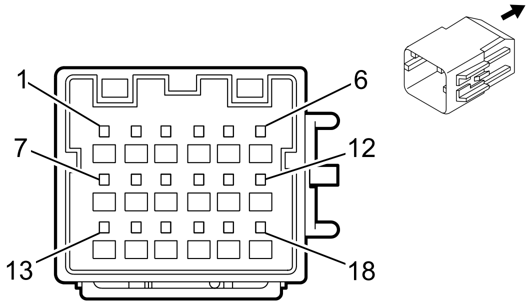
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE	6817	I	-	LED Backlight Dimming Control	1	0.35 0.35	YE YE	6817 6817	III	- -
2	0.35	WH/YE	7557	I	-	LED Ambient Lighting Control 1	2	0.35 0.35	WH/YE WH/YE	7557 7557	III	- Z75

3	0.35	WH	6816	I	-	Indicator Dimming Control	3	0.35	WH	6816	III	-
4	-	-	-	-	-	Not Occupied	4	-	-	-	-	-
5	0.35	BN/BK	3389	II	without A45	Driver Mirror Motor Right (+) Left (-) Control	5	0.35	BN/BK	3389	IV	without A45
6	0.35	VT/D-BU	3390	II	-	Driver Mirror Motor Up (+) Down (-) Control	6	0.35	VT/D-BU	3390	IV	-
7	0.35	YE/BN	3391	II	-	Driver Mirror Motor Common Control	7	0.35	YE/BN	3391	IV	-
8	0.5	GY/WH	3411	II	DL3 or DR4 with A45	Driver Mirror Motor Fold Out Control	8	0.5	GY/WH	3411	IV	DL3 or DR4 with A45
9	0.5	WH/L-GN	3412	II	DL3 or DR4 with A45	Driver Mirror Motor Fold In Control	9	0.5	WH/L-GN	3412	IV	DL3 or DR4 with A45
10	0.35	GY/BN	3394	II	A45	Driver Mirror Position Sensor Up (+) Down (-) Signal	10	0.35	GY/BN	3394	IV	A45
11	0.35	BN/BK	3389	II	A45	Driver Mirror Motor Right (+) Left (-) Control	11	0.35	BN/BK	3389	IV	A45
12	0.35	VT/RD	3392	II	A45	Driver Mirror Position Sensor High Reference	12	0.35	VT/RD	3392	IV	A45
13	0.35	WH/YE	3395	I	A45	Driver Mirror Position Sensor Left (-) Right (+) Signal	13	0.35	WH/YE	3395	III	A45
14	0.35	BK/BN	3393	I	A45	Driver Mirror Position Sensor Low Reference	14	0.35	BK/BN	3393	III	A45
15-16	-	-	-	-	-	Not Occupied	15-16	-	-	-	-	-
17	0.35	BK	1150	II	-	Ground	17	0.35	BK	1150	IV	-
18-19	-	-	-	-	-	Not Occupied	18-19	-	-	-	-	-
20	0.75	YE/D-BU	1856	II	UQH	Left Front Tweeter Speaker (+)	20	0.75	YE/D-BU	1856	IV	UQH
21	0.75	YE/GY	1956	II	UQH	Left Front Tweeter Speaker (-)	21	0.75	YE/GY	1956	IV	UQH
22	0.35	RD/VT	1940	II	-	Battery Positive Voltage	22	0.35	RD/VT	1940	IV	-
23	0.75	BK	1150	II	-	Ground	23	0.75	BK	1150	IV	-
24	-	-	-	-	-	Not Occupied	24	-	-	-	-	-
25	0.5	GY/WH	3411	I	DL3 or DR4 without A45	Driver Mirror Motor Fold Out Control	25	0.5	GY/WH	3411	III	DL3 or DR4 without A45
26	0.5	WH/L-GN	3412	I	DL3 or DR4 without A45	Driver Mirror Motor Fold In Control	26	0.5	WH/L-GN	3412	III	DL3 or DR4 without A45
27-28	-	-	-	-	-	Not Occupied	27-28	-	-	-	-	-

29	0.35	GY	1136	II	-	Power Window Master Switch Left Front Down Signal	29	0.35	GY	1136	IV	
30	0.35	L-GN/WH	1300	II	-	Power Window Master Switch Left Front Up Signal	30	0.35	L-GN/WH	1300	IV	-
31	0.35	L-GN/VT	7628	II	-	Power Window Motor Left Front Express Control	31	0.35	L-GN/VT	7628	IV	-
32	0.35	BK/D-BU	5978	II	A45	Memory Switch Low Reference	32	0.35	BK/D-BU	5978	IV	A45
33	0.35	D-BU/L-GN	614	II	A45	Memory Seat Switch Set Signal	33	0.35	D-BU/L-GN	614	IV	A45
34	0.35	WH	615	II	A45	Memory Seat Switch Signal (1)	34	0.35	WH	615	IV	A45
35	-	-	-	-	-	Not Occupied	35	-	-	-	-	-
36	0.5	L-GN/YE	6134	II	-	Linear Interconnect Network Bus 3	36	0.5	L-GN/YE	6134	IV	-
37	0.5	L-GN/WH	7530	I	A45	Linear Interconnect Network Bus 8	37	0.5	L-GN/WH	7530	III	A45
38	1 1	BN/D-BU BN/D-BU	118 118	I	UQH UQH	Left Front Speaker Signal (-) (1)	38	0.75	D-BU	118	III	UQH
39	1 1	D-BU D-BU	201 201	I	UQH UQH	Left Front Speaker (+) (1)	39	0.75	BN/D-BU	201	III	UQH
40	0.35	YE/BN	3265	II	-	Child Security Lock Switch Signal	40	0.35	YE/BN	3265	IV	-
41	0.35	WH/VT	3270	II	-	Driver Door Lock Motor Status	41	0.35	WH/VT	3270	IV	-
42	0.35	L-GN/BK	3396	II	without A45	Co-Driver Mirror Motor Right (+) Left (-) Control	42	0.35	L-GN/BK	3396	IV	without A45
43	0.35	YE/VT	3397	II	without A45	Co-Driver Mirror Motor Up (+) Down (-) Control	43	0.35	YE/VT	3397	IV	without A45
44	0.35	WH	3398	II	without A45	Co-Driver Mirror Motor Common Control	44	0.35	WH	3398	IV	without A45
45	0.35	GY	5697	II	-	Child Lockout Indicator	45	0.35	GY	5697	IV	-
46	0.35	D-BU/VT	1124	II	-	Door Lock Key Switch Unlock Signal	46	0.35	D-BU/VT	1124	IV	-
47	0.35	BN/WH	781	II	-	Driver Door Lock Switch Unlock Signal	47	0.35	BN/WH	781	IV	-
48	0.35	BN/YE	780	II	-	Driver Door Lock Switch Lock Signal	48	0.35	BN/YE	780	IV	-

X510 OSRVM Harness to Driver Door Harness





Connector Part Information

Harness Type: Outside Rear View Mirror

OEM Connector: ARVPB-18-3AK

Service Connector: Service by Harness - See Part Catalog

Description: 18–Way F 0.64 Series (BK)

Connector Part Information

Harness Type: Driver Door

OEM Connector: 13888973

Service Connector: Service by Harness - See Part Catalog

Description: 18-Way M 0.64 Series (BK)

Terminal Part Information

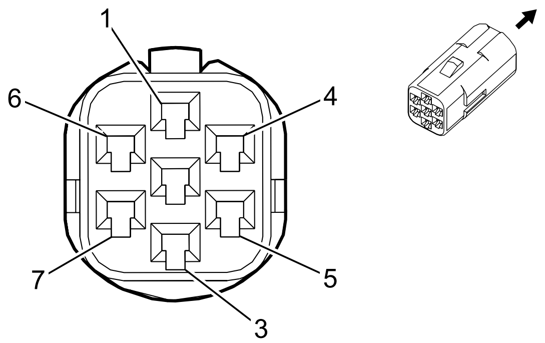
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13505669	J-35616-65B (L-BU)	J-38125-553	SNAC3W-A021T-0.64	20	J	J

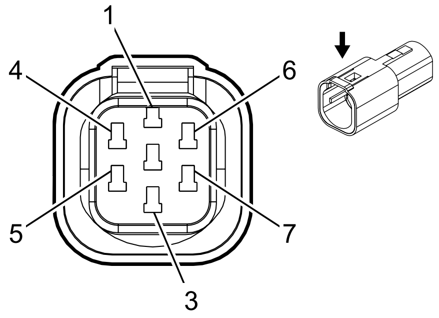
X510 OSRVM Harness to Driver Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG/WH	5996	I	DL3	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	1	0.5	GY/WH	5996	II	DL3
2	0.35	BN	1690	I	DD8	Automatic Day/Night Mirror Signal	2	0.35	YE/BK	1690	II	DD8
3	0.35	BU	3393	I	A45	Driver Mirror Position Sensor Low Reference	3	0.35	BK/BN	3393	II	A45
4	0.5	YE	3411	I	DL3 or DR4	Driver Mirror Motor Fold	4	0.5	GY/WH	3411	II	DL3 or DR4 with A45

4	0.5	YE	3411	I	DL3 or DR4	Driver Mirror Motor Fold Out Control	4	0.5	GY/WH	3411	II	DL3 or DR4 with A45
5	0.35	BK/WH	1150	I	DL3, DR4 or UKC	Ground	5	0.35	BK	1150	II	DL3, DR4 or UKC
6	-	-	-	-	-	Not Occupied	6	-	-	-	-	-
7	0.35	GY	3395	I	A45	Driver Mirror Position Sensor Left (-) Right (+) Signal	7	0.35	WH/YE	3395	II	A45
8	0.5	BK	2267	I	DL3 or DR4	Mirror Heating Element Supply Voltage	8	0.5	BN/YE	2267	II	DL3 or DR4
9	0.35	OG/BK	3390	I	-	Driver Mirror Motor Up (+) Down (-) Control	9	0.35	VT/D-BU	3390	II	-
10	0.35	GN	3389	I	A45	Driver Mirror Motor Right (+) Left (-) Control	10	0.35	BN/BK	3389	II	A45
11	0.5	BK	1150	I	DL3, DL8 or DR4	Ground	11	0.5	BK	1150	II	DL3, DL8 or DR4
12	0.35	WH	3391	I	-	Driver Mirror Motor Common Control	12	0.35	YE/BN	3391	II	-
13	0.5	RD/BU	1314	I	DL3 or DR4	Left Front Turn Signal Lamp Supply Voltage	13	0.5	D-BU/WH	1314	II	DL3 or DR4
14	0.35	GN	3394	I	A45	Driver Mirror Position Sensor Up (+) Down (-) Signal	14	0.35	GY/BN	3394	II	A45
15	0.35	BK/YE	5853	I	UKC	Driver Side Object Detection LED Signal (1)	15	0.35	GY/YE	5853	II	UKC
16	0.35	BN/BK	1691	I	DL3 or DR4	Automatic Day/Night Mirror Low Reference	16	0.35	BK/YE	1691	II	DL3 or DR4
17	0.35	L-GN	3392	I	A45	Driver Mirror Position Sensor High Reference	17	0.35	VT/RD	3392	II	A45
18	0.5	L-BU	3412	I	DL3 or DR4	Driver Mirror Motor Fold In Control	18	0.5	WH/L-GN	3412	II	DL3 or DR4

X515 Left OSRVM Camera Jumper to Door Driver Harness (UVH)





Connector Part Information

Harness Type: OSRVM Jumper

OEM Connector: 13576423

Service Connector: Service by Harness - See Part Catalog

Description: 7-Way F Multi Lock Series (L-GN)

Connector Part Information

Harness Type: Driver Door

OEM Connector: 10846470

Service Connector: Service by Harness - See Part Catalog

Description: 7-Way M 0.8 Series, Sealed (L-GN)

Terminal Part Information

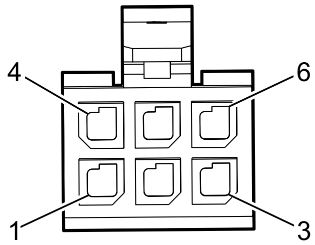
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

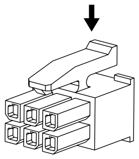
X515 Left OSRVM Camera Jumper to Door Driver Harness (UVH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH/D-BU	2628	I	-	Left Side Vision Camera Video Signal (+)	1	0.35	WH/D-BU	2628	II	-
2	0.35	BK	2624	I	-	Left Side Vision Camera Video Drain Wire	2	0.35	BK	2624	II	-
3	-	-	-	-	-	Not Occupied	3	-	-	-	-	-
4	0.35	GY/D-BU	2625	I	-	Left Side Vision Camera Video Signal (-)	4	0.35	GY/D-BU	2625	II	-

5	0.35	BK/WH	2551	I	-	Signal Ground	5	0.35	BK/WH	2551	II	-
6	0.5	WH/BN	6201	I	-	Camera Supply Voltage	6	0.5	WH/BN	6201	II	-
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-

X525 Driver OSRVM Harness to Driver OSRVM Glass Harness





Connector Part Information

Harness Type: Outside Rearview Mirror — Driver

OEM Connector: 794617–6

Service Connector: Service by Harness — See Part Catalog

Description: 6–Way F Micro Mate-N-Lok series (BK)

Connector Part Information

Harness Type: Outside Rearview Mirror Glass — Driver

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 6–Way M Micro Mate-N-Lok series (BK)

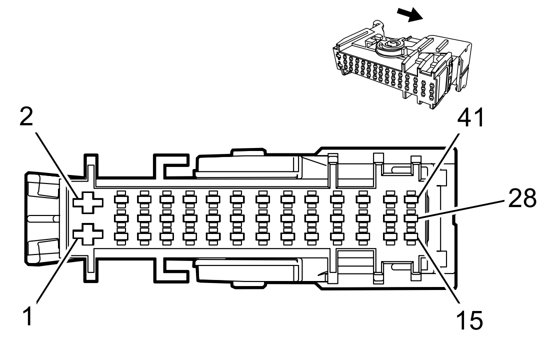
Terminal Part Information

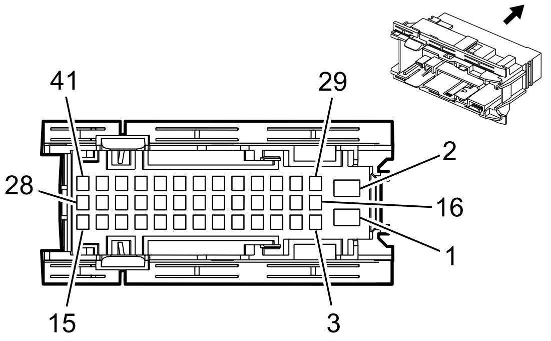
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X525 Driver OSRVM Harness to Driver OSRVM Glass Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN/BK	1691	I	DD8	Automatic Day/Night Mirror Low Reference	1	0.35	BN	1691	II	DD8
2	0.35	BK/WH	1150	I	DL3	Ground	2	0.35	BK/RD	1150	II	DL3
3	0.35	RD/BU	1314	I	DL3	Left Front Turn Signal Lamp Supply Voltage	1	0.35	BU	1314	II	DL3
4	0.35	BN	1690	I	DD8	Automatic Day/Night Mirror Signal	2	0.35	BN	1690	II	DD8
5	0.35	BK/WH	1150	I	UKC	Ground	1	0.35	VT	1150	II	UKC
6	0.35	BK/YE	5853	I	UKC	Driver Side Object Detection LED Signal (1)	2	0.35	GN	5853	II	UKC

X600 Passenger Door Harness to Body Harness





Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13600509

Service Connector: Service by Harness - See Part Catalog

Description: 41-Way F 4.8 TIMER/DSQ 1.5 Series

Connector Part Information

Harness Type: Body

OEM Connector: 13946876

Service Connector: 13587760

Description: 41-Way M 1.5, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	13575857	J-35616-42 (RD)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	13327176	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	13327174	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13582220	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13575556	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VIII	13578869	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available

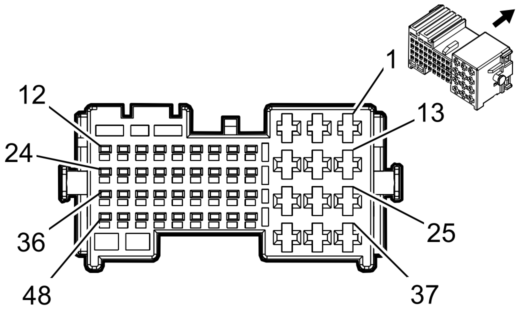
X600 Passenger Door Harness to Body Harness

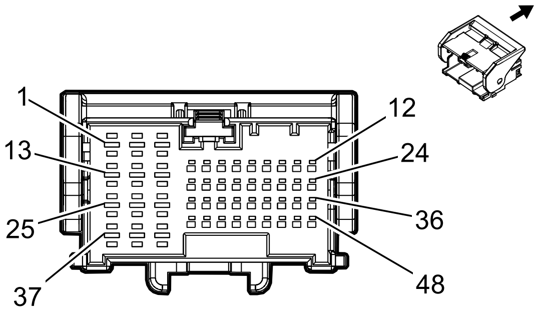
Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	2.5	RD/WH	1340	I	-	Battery Positive Voltage	1	2.5	RD/WH	1340	III	-
2	2.5	BK	1250	I	-	Ground	2	2.5	BK	1250	VI	-
3	0.5	GY/L-GN	5996	II	DL3 or DR4	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	3	0.5	GY/L-GN	5996	IV	DL3 or DR4
4	0.5	WH	3398	II	without A45	Co-Driver Mirror Motor Common Control	4	0.5	WH	3398	V	without A45
5	-	-	-	-	-	Not Occupied	5	-	-	-	-	-
6	0.35	WH	6816	II	Z75	Indicator Dimming Control	6	0.35	WH	6816	VIII	Z75
7	0.5	WH/L-GN	3412	II	DL3 or DR4 without A45	Driver Mirror Motor Fold In Control	7	0.5	WH/L-GN	3412	IV	DL3 or DR4 without A45
8	0.5	GY/WH	3411	II	DL3 or DR4 without A45	Driver Mirror Motor Fold Out Control	8	0.5	GY/WH	3411	IV	DL3 or DR4 without A45
9	0.75	VT/BN	1952	II	UQH	Right Front Tweeter Speaker (-)	9	0.75	VT/BN	1952	IV	UQH
10	1	YE/BK	117	II	-	Right Front Speaker Signal (-) (1)	10	1	YE/BK	117	IV	-
11	0.5	RD/D-BU	840	II	-	Battery Positive Voltage	11	0.5	RD/D-BU	840	IV	-
12	0.35	WH/D-BU	2627	II	UVH	Right Side Vision Camera Video Signal (+)	12	0.35	WH/D-BU	2627	VI	UVH
13	0.35	GY/D-BU	2626	II	UVH	Right Side Vision Camera Video Signal (-)	13	0.35	GY/D-BU	2626	VI	UVH
14	0.35	BN/OG	2134	II	-	Right Front Side Impact Sensing Module Signal	14	0.35	BN/OG	2134	VI	-
15	0.35	BK/OG	6629	II	-	Right Front Side Impact Sensing Module Low Reference	15	0.35	BK/OG	6629	VI	-
16	-	-	-	-	-	Not Occupied	16	-	-	-	-	-
17	0.35	BN/VT	245	II	-	Passenger Door Lock Switch Unlock Control	17	0.35	BN/VT	245	V	-
18	0.35	YE/VT	244	II	-	Passenger Door Lock Switch Lock Control	18	0.35	YE/VT	244	V	-
19	0.75	BN/YE	294	II	-	Door Lock Actuator Unlock Control	19	0.75	BN/YE	294	IV	-
20	0.75	GY	295	II	-	Door Lock Actuator Lock Control	20	0.75	GY	295	IV	-
21	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
22	0.75	BN/L-GN	1852	II	UQH	Right Front Tweeter Speaker (+)	22	0.75	BN/L-GN	1852	IV	UQH

23	1	YE	200	II	-	Right Front Speaker (+) (1)	23	1	YE	200	VII	-
24	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
25	0.35	VT/WH	3571	II	ATH	Co_Driver Door Handle Switch Signal	25	0.35	VT/WH	3571	VIII	ATH
26	0.35	Bare	2623	II	UVH	Right Side Vision Camera Video Drain Wire	26	0.35	Bare	2623	V	UVH
27	0.35	L-GN/BK	3563	II	-	Passive Entry Co_Driver Door Antenna Signal Lo	27	0.35	L-GN/BK	3563	VIII	-
28	0.35	L-GN/YE	3562	II	-	Passive Entry Co_Driver Door Antenna Signal Hi	28	0.35	L-GN/YE	3562	VIII	-
29	0.35	YE	6817	II	-	LED Backlight Dimming Control	29	0.35	YE	6817	V	-
30	0.35	WH/YE	7557	II	-	LED Ambient Lighting Control 1	30	0.35	WH/YE	7557	V	-
31	0.5	BN/OG	2267	II	-	Mirror Heating Element Supply Voltage	31	0.5	BN/YE	2267	IV	-
32	-	-	-	-	-	Not Occupied	32	-	-	-	-	-
33	0.5	L-GN/YE	6134	II	-	Linear Interconnect Network Bus 3	33	0.5	L-GN/YE	6134	IV	-
34	0.5	L-GN/WH	7530	II	A45	Linear Interconnect Network Bus 8	34	0.5	L-GN/WH	7530	IV	A45
35	0.5	WH/BN	6201	II	UVH	Camera Supply Voltage	35	0.5	WH/BN	6201	IV	UVH
36	0.5	L-GN/BK	3396	II	without A45	Co-Driver Mirror Motor Right (+) Left (-) Control	36	0.5	L-GN/BK	3396	VI	without A45
37	0.35	GY	5861	II	UKC	Passenger Side Object Detection LED Signal (1)	37	0.35	GY	5861	VIII	UKC
38	0.5	YE/VT	3397	II	without A45	Co-Driver Mirror Motor Up (+) Down (-) Control	38	0.5	YE/VT	3397	V	without A45
39	0.75	BN	5910	II	UTT	Door Double Lock Actuator Lock Control	39	0.75	BN	5910	IV	UTT
40	0.35	BK/WH	2551	II	UVH	Signal Ground	40	0.35	BK/WH	2551	V	UVH
41	0.75	L-GN/VT	1315	II	-	Right Front Turn Signal Lamp Supply Voltage	41	0.75	L-GN/VT	1315	IV	-

X605 Passenger Door Harness to Passenger Door Trim Harness





Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13889713

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.2 MCON, 2.8 MCP Series

Connector Part Information

Harness Type: Passenger Door Trim

OEM Connector: 13889712

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way M 1.2 MCON, 2.8 MCP Series

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-5 (PU)	Not Available	Not Available	Not Available	Not Available	Not Available
IV	Not Available	J-35616-13 (BU)	Not Available	Not Available	Not Available	Not Available	Not Available

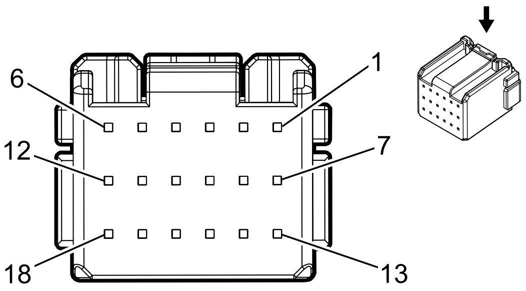
X605 Passenger Door Harness to Passenger Door Trim Harness

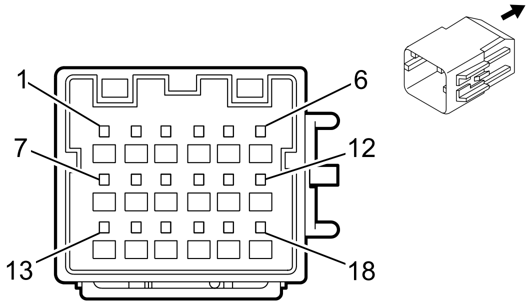
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE	6817	I	-	LED Backlight Dimming Control	1	0.35 0.35	YE YE	6817 6817	III	- -
2	0.35	WH/YE	7557	I	-	LED Ambient Lighting Control 1	2	0.35	WH/YE	7557	III	-

3	0.35	WH	6816	I	Z75	Indicator Dimming Control	3	0.35	WH	6816	III	Z75
4-5	-	-	-	-	-	Not Occupied	4-5	-	-	-	-	-
6	0.35	YE/VT	3397	II	A45	Co-Driver Mirror Motor Up (+) Down (-) Control	6	0.35	YE/VT	3397	IV	A45
7	0.35	WH	3398	II	A45	Co-Driver Mirror Motor Common Control	7	0.35	WH	3398	IV	A45
8	0.5	YE/WH	3413	II	DL3 or DR4 with A45	Co-Driver Mirror Motor Fold Out Control	8	0.5	YE/WH	3413	IV	DL3 or DR4 with A45
9	0.5	D-BU/GY	3414	II	DL3 or DR4 with A45	Co-Driver Mirror Motor Fold In Control	9	0.5	D-BU/GY	3414	IV	DL3 or DR4 with A45
10	0.35	D-BU/YE	3401	II	A45	Co-Driver Mirror Position Sensor Up (+) Down (-) Signal	10	0.35	D-BU/YE	3401	IV	A45
11	0.35	L-GN/BK	3396	II	A45	Co-Driver Mirror Motor Right (+) Left (-) Control	11	0.35	L-GN/BK	3396	IV	A45
12	0.35	YE/RD	3399	II	A45	Co-Driver Mirror Position Sensor High Reference	12	0.35	YE/RD	3399	IV	A45
13	0.35	VT/WH	3403	I	A45	Co-Driver Mirror Position Sensor Left (-) Right (+) Signal	13	0.35	VT/WH	3403	III	A45
14	0.35	BK/L-GN	3400	I	A45	Co-Driver Mirror Position Sensor Low Reference	14	0.35	BK/L-GN	3400	III	A45
15-16	-	-	-	-	-	Not Occupied	15-16	-	-	-	-	-
17	0.35	BK	1250	II	-	Ground	17	0.35	BK	1250	IV	-
18-19	-	-	-	-	-	Not Occupied	18-19	-	-	-	-	-
20	0.75	BN/L-GN	1852	II	UQH	Right Front Tweeter Speaker (+)	20	0.75	BN/L-GN	1852	IV	UQH
21	0.75	VT/BN	1952	II	UQH	Right Front Tweeter Speaker (-)	21	0.75	VT/BN	1952	IV	UQH
22	0.5	RD/D-BU	840	II	A45	Battery Positive Voltage	22	0.5	RD/D-BU	840	IV	A45
23-28	-	-	-	-	-	Not Occupied	23-28	-	-	-	-	-
29	0.35	BN/YE	167	II	-	Power Window Master Switch Right Front Down Signal	29	0.35	BN/YE	167	IV	-
30	0.35	YE/BK	166	II	-	Power Window Master Switch Right Front Up Signal	30	0.35	YE/BK	166	IV	-
31	0.35	VT/GY	2765	II	-	Power Window Switch Right Front Express Signal	31	0.35	VT/GY	2765	IV	-
32	-	-	-	-	-	Not Occupied	32	-	-	-	-	-

32	-	-	-	-	-	Not Occupied	32	-	-	-	-	-
33	0.35	VT	4009	II	Z75	Co-Driver Door Lock Status	33	0.35	VT	4009	IV	Z75
34-36	-	-	-	-	-	Not Occupied	34-36	-	-	-	-	-
37	0.5	L-GN/WH	7530	I	A45	Linear Interconnect Network Bus 8	37	0.5	L-GN/WH	7530	III	A45
38	1 1	YE/BK YE/BK	117 117	I	UQH UQH	Right Front Speaker Signal (-) (1)	38	0.75	YE	117	III	UQH
39	1 1	YE YE	200 200	I	UQH UQH	Right Front Speaker (+) (1)	39	0.75	YE/BK	200	III	UQH
40-46	-	-	-	-	-	Not Occupied	40-46	-	-	-	-	-
47	0.35	BN/VT	245	II	-	Passenger Door Lock Switch Unlock Control	47	0.35	BN/VT	245	IV	-
48	0.35	YE/VT	244	II	-	Passenger Door Lock Switch Lock Control	48	0.35	YE/VT	244	IV	-

X610 OSRVM Harness to Passenger Door Harness





Connector Part Information

Harness Type: Outside Rear View Mirror

OEM Connector: ARVPB-18-3AK

Service Connector: Service by Harness - See Part Catalog

Description: 18–Way F 0.64 Series (BK)

Connector Part Information

Harness Type: Passenger Door

OEM Connector: 13888973

Service Connector: Service by Harness - See Part Catalog

Description: 18-Way M 0.64 Series (BK)

Terminal Part Information

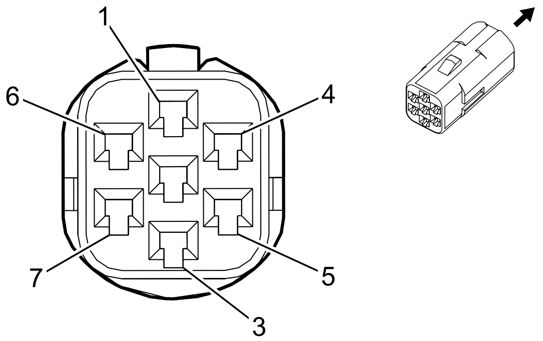
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	13505669	J-35616-65B (L-BU)	J-38125-553	SNAC3W-A021T-0.64	20	J	J
III	13505669	J-35616-65B (L-BU)	J-38125-553	SNAC3W-A021T-0.64	20	Not Available	Not Available

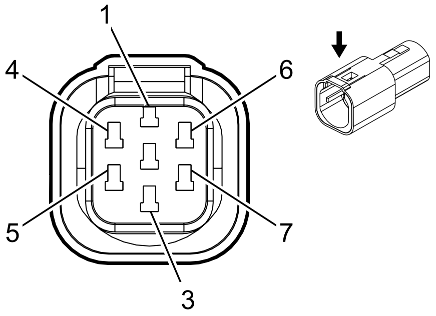
X610 OSRVM Harness to Passenger Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG/WH	5996	I	DL3	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	1	0.5	GY/L-GN	5996	II	DL3
2	-	-	-	-	-	Not Occupied	2	-	-	-	-	-
3	0.35	BU	3400	I	A45	Co-Driver Mirror Position Sensor Low	3	0.35	BK/L-GN	3400	II	A45

						Reference					
4	0.5	L-BU	3413	I	DL3 or DR4	Co-Driver Mirror Motor Fold Out Control	4	0.5	YE/WH	3413	II	DL3 or DR4
5	0.35	BK/WH	1250	I	DL3, DR4 or UKC	Ground	5	0.35	BK	1250	II	DL3, DR4 or UKC
6	-	-	-	-	-	Not Occupied	6	-	-	-	-	-
7	0.35	GY	3403	I	A45	Co-Driver Mirror Position Sensor Left (-) Right (+) Signal	7	0.35	VT/WH	3403	II	A45
8	0.5	BK	2267	I	-	Mirror Heating Element Supply Voltage	8	0.5	BN/OG	2267	II	
9	0.35	OG/BK	3397	I	-	Co-Driver Mirror Motor Up (+) Down (-) Control	9	0.35	YE/VT	3397	II	-
10	0.35	GN/WH	3396	I	-	Co-Driver Mirror Motor Right (+) Left (-) Control	10	0.35	L-GN/BK	3396	II	-
11	0.5	BK	1250	I	DL3, DL8, or DR4	Ground	11	0.5	BK	1250	II	DL3, DL8, or DR4
12	0.35	WH	3398	I	-	Co-Driver Mirror Motor Common Control	12	0.35	WH	3398	II	-
13	0.5	RD/BU	1315	I	DL3 or DR4	Right Front Turn Signal Lamp Supply Voltage	13	0.5	L-GN/VT	1315	II	DL3 or DR4
14	0.35	GN	3401	I	A45	Co-Driver Mirror Position Sensor Up (+) Down (-) Signal	14	0.35	D-BU/YE	3401	II	A45
15	0.35	BK/YE	5861	I	UKC	Passenger Side Object Detection LED Signal (1)	15	0.35	GY	5861	II	UKC
16	-	-	-	-	-	Not Occupied	16	-	-	-	-	-
17	0.35	L-GN	3399	I	A45	Co-Driver Mirror Position Sensor High Reference	17	0.35	YE/RD	3399	II	A45
18	0.5	YE	3414	I	DL3 or DR4	Co-Driver Mirror Motor Fold In Control	18	0.5	D-BU/GY	3414	II	DL3 or DR4

X615 Outside Rearview Mirror Jumper to Passenger Door Harness (UVH)





Connector Part Information

Harness Type: OSRVM Jumper

OEM Connector: 13576423

Service Connector: Service by Harness - See Part Catalog

Description: 7-Way F 0.8 Series, Sealed (L-GN)

Connector Part Information

Harness Type: Passenger Door

OEM Connector: 10846470

Service Connector: Service by Harness - See Part Catalog

Description: 7-Way M 0.8 Series, Sealed (L-GN)

Terminal Part Information

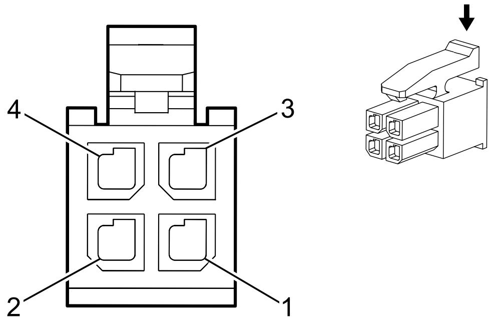
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-64B (L-BU)	Not Available	Not Available	Not Available	Not Available	Not Available

X615 Outside Rearview Mirror Jumper to Passenger Door Harness (UVH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH/D-BU	2627	I	-	Right Side Vision Camera Video Signal (+)	1	0.35	WH/D-BU	2627	II	-
2	0.35	BK	2623	I	-	Right Side Vision Camera Video Drain Wire	2	0.35	BK	2623	II	-
3	-	-	-	-	-	Not Occupied	3	-	-	-	-	-
4	0.35	GY/D-BU	2626	I	-	Right Side Vision	4	0.35	GY/D-BU	2626	II	-

4	0.35	GY/D-BU	2626	I	-	Right Side Vision Camera Video Signal (-)	4	0.35	GY/D-BU	2626	II	-
5	0.35	BK/WH	2551	I	-	Signal Ground	5	0.35	BK/WH	2551	II	-
6	0.5	WH/BN	6201	I	-	Camera Supply Voltage	6	0.5	WH/BN	6201	II	-
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-

X625 Passenger OSRVM Harness to Passenger OSRVM Glass Harness



Connector Part Information

Harness Type: Outside Rearview Mirror — Passenger

OEM Connector: 794617–6

Service Connector: Service by Harness — See Part Catalog

Description: 4–Way F Micro Mate-N-Lok series (BK)

Connector Part Information

Harness Type: Outside Rearview Mirror Glass — Passenger

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 4–Way M Micro Mate-N-Lok series (BK)

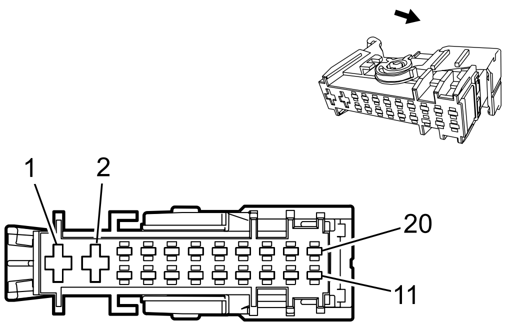
Terminal Part Information

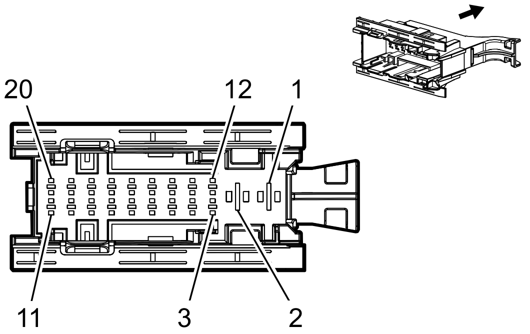
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

X625 Passenger OSRVM Harness to Passenger OSRVM Glass Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BK/WH	1250	I	DL3	Ground	1	0.35	BK/RD	1250	II	DL3
2	0.35	RD/BU	1315	I	DL3	Right Front Turn Signal Lamp Control	2	0.35	BU	1315	II	DL3
3	0.35	BK/WH	1250	I	UKC	Ground	1	0.35	VT	1250	II	UKC
4	0.35	BK/YE	5861	I	UKC	Passenger Side Object Detection LED Signal (1)	2	0.35	GN	5861	II	UKC

X700 Left Rear Door Harness to Body Harness





Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 13600493

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 1.5, 4.8 Timer DSQ Series (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 13600495

Service Connector: 13576560

Description: 20-Way M 1.5, 5.8 Timer Series (GY)

Terminal Part Information

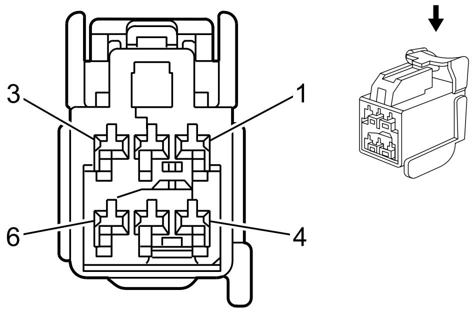
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	13575857	J-35616-42 (RD)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	13327176	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	13327174	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13575706	J-35616-42 (RD)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VII	13327150	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VIII	13578869	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available

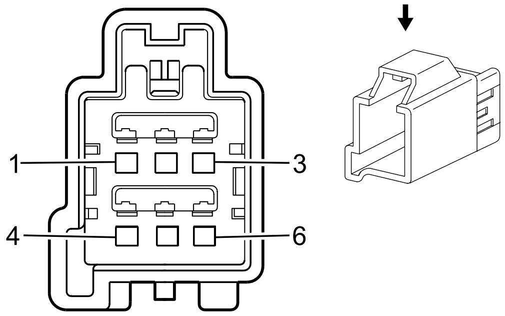
X700 Left Rear Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	2.5	RD/D-BU	1842	I	-	Battery Positive Voltage	1	2.5	RD/D-BU	1842	III	-
2	4	BK	1150	I	-	Ground	2	4	BK	1150	VI	-
3	0.35	WH/YE	7557	II	-	LED Ambient Lighting Control 1	3	0.35	WH/YE	7557	VIII	-
4-6	-	-	-	-	-	Not Occupied	4-6	-	-	-	-	-
7	1	L-GN	199	II	-	Left Rear Speaker (+)	7	1	L-GN	199	IV	-
8	0.35	BN/YE	6157	II	ATH	Left Rear Door Handle Switch Signal	8	0.35	BN/YE	6157	X	ATH
9	0.75	WH/D-BU	3266	II	-	Child Security Lock Motor Unlock Control	9	0.75	WH/D-BU	3266	IV	-
10	0.75	BN/YE	294	II	-	Door Lock Actuator Unlock Control	10	0.75	BN/YE	294	IV	-
11	0.75	GY	295	II	-	Door Lock Actuator Lock Control	11	0.75	GY	295	IV	-
12	-	-	-	-	-	Not Occupied	12	-	-	-	-	-
13	0.75	BN	5910	II	UTT	Door Double Lock Actuator Lock Control	13	0.75	BN	5910	IV	UTT
14	0.5	GY/L-GN	5996	II	Z75	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	14	0.5	GY/L-GN	5996	VII	Z75
15	-	-	-	-	-	Not Occupied	15	-	-	-	-	-
16	1	L-GN/BK	116	II	-	Left Rear Speaker Signal (-)	16	1	L-GN/BK	116	IV	-
17–18	-	-	-	-	-	Not Available	-	-	-	-	-	-
19	0.35	BN/WH	3269	II	-	Child Security Lock Motor Status Signal Left Rear	19	0.35	BN/WH	3269	V	-
20	0.5	L-GN/GY	6135	II	-	Linear Interconnect Network Bus 4	20	0.5	L-GN/GY	6135	IV	-

X705 Left Rear Door Harness to Left Rear Door Trim Harness (Z75)





Connector Part Information

Harness Type: Left Rear Door

OEM Connector: 10846805

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Left Rear Door Trim

OEM Connector: 10846804

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 1.5 Series (L-GY)

Terminal Part Information

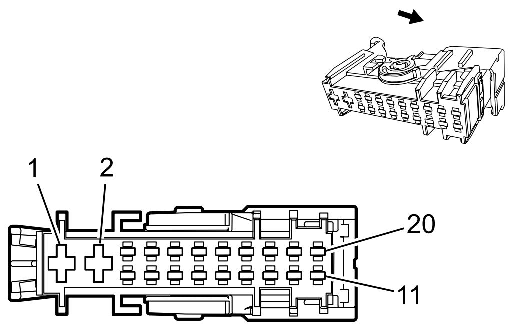
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

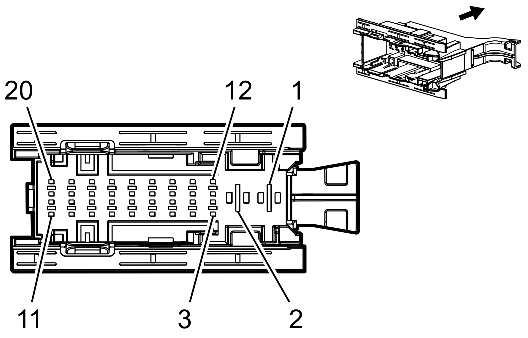
X705 Left Rear Door Harness to Left Rear Door Trim Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	0.35	WH/YE	7557	II	-	LED Ambient Lighting Control 1	2	0.35	WH/YE	7557	I	-
3	0.75	L-GN/BK	116	II	-	Left Rear Speaker Signal (-)	3	0.75	L-GN/BK	116	I	-
4	-	-	-	-	-	Not Occupied	4	-	-	-	-	-

5	0.35	BK	1150	II	-	Ground	5	0.35	BK	1150	I	-
6	0.75	L-GN	199	II	-	Left Rear Speaker (+)	6	0.75	L-GN	199	I	-

X800 Right Rear Door Harness to Body Harness





Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 13600493

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 1.5, 4.8 Timer DSQ Series (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 13600495

Service Connector: 13576560

Description: 20-Way M 1.5, 5.8 Timer Series (GY)

Terminal Part Information

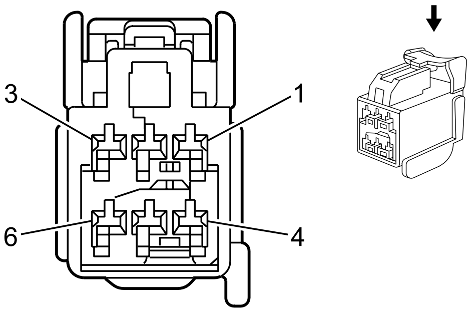
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-14 (GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	13575857	J-35616-42 (RD)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	13327176	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	13575556	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13327174	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13582220	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VIII	13327150	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IX	13578869	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available

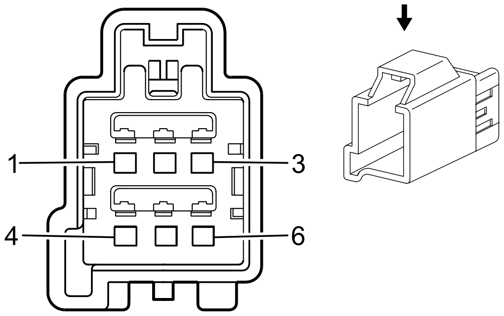
X800 Right Rear Door Harness to Body Harness

Right Rear Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/WH	1340	I	-	Battery Positive Voltage	1	2.5	RD/WH	1340	III	-
2	2.5	BK	1250	I	-	Ground	2	2.5	BK	1250	VII	-
3	0.35	WH/YE	7557	II	-	LED Ambient Lighting Control 1	3	0.35	WH/YE	7557	IX	-
4-6	-	-	-	-	-	Not Occupied	4-6	-	-	-	-	-
7	1	WH	46	II	-	Right Rear Speaker (+)	7	1	WH	46	V	-
8	0.35	YE/GY	6158	II	ATH	Right Rear Door Handle Switch Signal	8	0.35	YE/GY	6158	IX	ATH
9	0.75	WH/D-BU	3266	II	-	Child Security Lock Motor Unlock Control	9	0.75	WH/D-BU	3266	IV	-
10	0.75	BN/YE	294	II	-	Door Lock Actuator Unlock Control	10	0.75	BN/YE	294	IV	-
11	0.75	GY	295	II	-	Door Lock Actuator Lock Control	11	0.75	GY	295	IV	-
12	-	-	-	-	-	Not Occupied	12	-	-	-	-	-
13	0.75	BN	5910	II	UTT	Door Double Lock Actuator Lock Control	13	0.75	BN	5910	IV	UTT
14	0.5	GY/L-GN	5996	II	Z95	Driver Outside Rear View Mirror Puddle Lamp Supply Voltage	14	0.5	GY/L-GN	5996	VIII	Z95
15	-	-	-	-	-	Not Occupied	15	-	-	-	-	-
16	1	D-BU/BK	115	II	-	Right Rear Speaker Signal (-)	16	1	D-BU/BK	115	V	-
17–18	-	-	-	-	-	Not Occupied	-	-	-	-	-	-
19	0.35	GY/BK	3268	II	-	Child Security Lock Motor Status Signal Right Rear	19	0.35	GY/BK	3268	VI	-
20	0.5	L-GN/GY	6135	II	-	Linear Interconnect Network Bus 4	20	0.5	L-GN/GY	6135	IV	-

X805 Right Rear Door Harness to Right Rear Door Trim Harness (Z75)





Connector Part Information

Harness Type: Right Rear Door

OEM Connector: 10846805

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Right Rear Door Trim

OEM Connector: 10846804

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 1.5 Series (L-GY)

Terminal Part Information

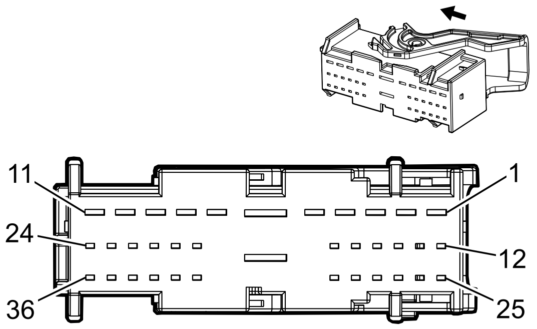
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-3 (GY)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-2A (GY)	Not Available	Not Available	Not Available	Not Available	Not Available

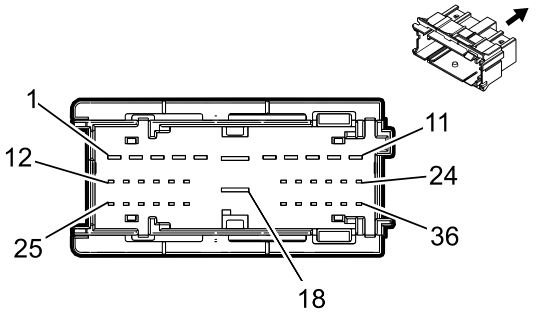
X805 Right Rear Door Harness to Right Rear Door Trim Harness (Z75)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	-	-	-	-	-	Not Occupied	1	-	-	-	-	-
2	0.35	WH/YE	7557	II	-	LED Ambient Lighting Control 1	2	0.35	WH/YE	7557	I	-
3	0.75	D-BU/BK	115	II	-	Right Rear Speaker Signal (-)	3	0.75	D-BU/BK	115	I	-
4	-	-	-	-	-	Not Occupied	4	-	-	-	-	-

5	0.35	BK	1250	II	-	Ground	5	0.35	BK	1250	I	-
6	0.75	WH	46	II	-	Right Rear Speaker (+)	6	0.75	WH	46	I	-

X900 Liftgate Harness to Body Harness





Connector Part Information

Harness Type: Liftgate

OEM Connector: 13925019

Service Connector: Service by Harness - See Part Catalog

Description: 36-Way F 1.2, 2.8, 6.3 Series

Connector Part Information

Harness Type: Body

OEM Connector: 13933751

Service Connector: 19329821

Description: 36-Way M 1.5, 2.8, 6.3 Series, Sealed

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	Not Available	J-35616-35 (VT)	Not Available	Not Available	Not Available	Not Available	Not Available
II	Not Available	J-35616-16 (LT GN)	Not Available	Not Available	Not Available	Not Available	Not Available
III	Not Available	J-35616-42 (RD)	Not Available	Not Available	Not Available	Not Available	Not Available
IV	13578908	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	13575821	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VI	19329830	J-35616-13 (BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VII	13580023	J-35616-43 (RD)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VIII	13575823	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

X900 Liftgate Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type	Option	Function	Pin	Size	Color	Circuit	Terminal Type	Option

				ID							ID	
1	3	RD/GY	7040	I	TB5 or TC2	Battery Positive Voltage	1	3	RD/GY	7040	IV	TB5 or TC2
2-3	-	-	-	-	-	Not Occupied	2-3	-	-	-	-	-
4	4	BK	1450	I	-	Ground	4	4	BK	1450	IV	-
5	-	-	-	-	-	Not Occupied	5	-	-	-	-	-
6	2.5	BN/VT	293	III	-	Rear Defog Element Supply Voltage	6	2.5	BN/VT	293	VII	-
7	-	-	-	-	-	Not Occupied	7	-	-	-	-	-
8	0.75	RD/YE	3040	I	-	Battery Positive Voltage	8	0.75	RD/YE	3040	VIII	-
9	-	-	-	-	-	Not Occupied	9	-	-	-	-	-
10	0.5 0.5	L-GN/YE L-GN/YE	6846 6846	I	- -	Rear License Lamp Supply Voltage	10	0.5	L-GN/YE	6846	V	-
11	3	BK	1450	I	TB5 or TC2	Ground	11	3	BK	1450	IV	TB5 or TC2
12	-	-	-	-	-	Not Occupied	12	-	-	-	-	-
13	0.5	L-GN	5060	II	TB5 or TC2	Low Speed GMLAN Serial Data	13	0.5	L-GN	5060	VI	TB5 or TC2
14	0.5	GY/BK	6113	II	TB5 or TC2	Rear Lift Gate Open/Close Switch Signal	14	0.35	GY/BK	6113	VI	TB5 or TC2
15	0.5	L-GN	6112	II	TB5 or TC2	Power Lift Gate On/Off Switch Signal	15	0.35	L-GN	6112	VI	TB5 or TC2
16-17	-	-	-	-	-	Not Occupied	16-17	-	-	-	-	-
18	2.5	BK	1450	III	-	Ground	18	2.5	BK	1450	VII	-
19	0.5	D-BU/WH	6128	II	TB4	Rear Closure Unlatch Motor Unlatch Control	19	0.5	D-BU/WH	6128	VI	TB4
20	0.35 0.35	BK BK	2551 2551	II	UVC UVH	Ground Ground	20	0.35 0.35	BK/WH BK/WH	2551 2551	VI	UVC UVH
21	-	-	-	-	-	Not Occupied	21	-	-	-	-	-
22	0.5	RD/D-BU	840	II	TB5 or TC2	Battery Positive Voltage	22	0.5	RD/D-BU	840	VI	TB5 or TC2
23	-	-	-	-	-	Not Occupied	23	-	-	-	-	-
24	0.35	YE/D-BU	5797	II	TB4	Rear Closure Handle Switch Open Signal	24	0.35	YE/D-BU	5797	VI	TB4
25	0.5	D-BU/YE	6795	II	-	Lift Glass/Trunk Motor Release Control 2	25	0.5	D-BU/YE	6795	VI	-
26	0.35	GY/L-GN	6190	II	-	Lift Glass/Trunk Exterior Release Signal	26	0.35	GY/L-GN	6190	VI	-
27	0.5	L-GN/BN	4118	II	-	Linear Interconnect Network Bus 18	27	0.5	L-GN/BN	4118	VI	-

						Network Bus 18						
28	0.35 0.35	VT/GY VT/GY	1303 1303	II	TB4 TB4	Lift Gate Ajar Switch Signal (1)	28	0.35	VT/GY	1303	VI	TB4
29	0.5	YE/RD	5797	II	TB4, TB5 or TC2	Rear Closure Handle Switch Open Signal	29	0.5	YE/D-BU	5797	VI	TB4, TB5 or TC2
30	0.5	L-GN/GY	6135	II	-	Linear Interconnect Network Bus 4	30	0.5	L-GN/GY	6135	VI	-
31	-	-	-	-	-	Not Occupied	31	-	-	-	-	-
32	0.35 0.5	VT/L-GN VT/L-GN	6201 1739	II	UVH UVC	Camera Control Run/Crank Ignition 1 Voltage	32	0.35 0.5	WH/BN VT/L-GN	6201 1739	VI	UVH UVC
33	0.35 0.35	WH/D-BU WH/D-BU	7642 6973	II	UVH UVC	Camera Rear Vision Signal (-) Camera Signal #2 –	33	0.35 0.35	WH/D-BU WH/D-BU	7642 6973	VI	UVH UVC
34	0.35 0.35	GY/YE GY/YE	7641 6972	II	UVH UVC	Camera Rear Vision Signal + Camera Signal #2 +	34	0.35 0.35	GY/YE GY/YE	7641 6972	VI	UVH UVC
35	0.35 0.35	Bare Bare	6799 6974	II	UVH UVC	Camera Drain Wire Camera Drain Wire	35	0.35 0.35	Bare Bare	6799 6974	VI	UVH UVC
36	0.35	L-GN/WH	24	II	UVC	Backup Lamp Supply Voltage	36	0.35	L-GN/WH	24	VI	UVC

Description and Operation

Electronic Park Lock Description and Operation

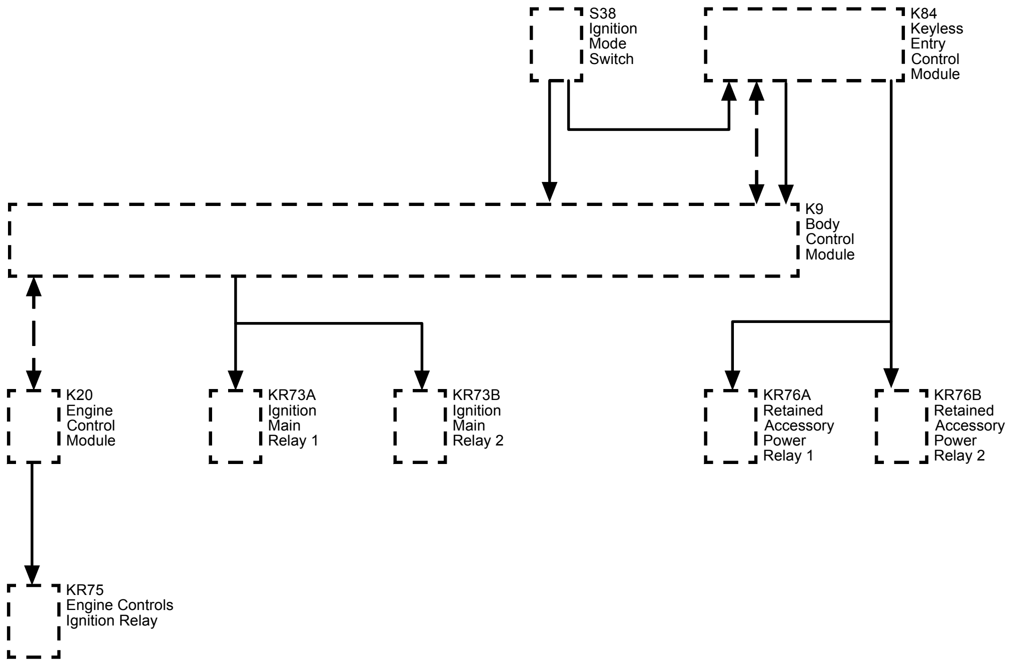
If the vehicle is equipped with automatic transmission and an ignition mode switch, it has an electronic park lock system. The electronic park lock system purpose is to prevent the ignition from being switched to the OFF position when the transmission is in any position other than PARK and the vehicle may still be moving. The electronic park lock system incorporates the park position switch that located in the A/T shift lock control switch. When the transmission shift selector is in PARK, the park position switch closes and the BCM allows the ignition to be turned OFF.

If the vehicle is not in PARK, the ignition will return to ACC/ACCESSORY and display the message SHIFT TO PARK in the Driver Information Center. When the vehicle is shifted into PARK, the ignition system will switch to OFF.

Power Mode Description and Operation (With BTM)

Serial Data Power Mode Master

Power Moding D&O Block Diagram



Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition mode switch is a low current switch with a discrete ignition signal to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (OFF, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The keyless entry control module also monitors voltage on the switch in the same manner as the BCM, but monitors the second switch located in the ignition mode switch. The keyless entry control module also controls the backup power through the run/crank coil control circuit by applying voltage to the ignition voltage circuit. This circuit is a pass-thru in the BCM and will energize the ignition circuit when the appropriate power mode is required.

The power mode master receives ignition switch or ignition mode switch signals to identify the operators desired power mode. The Power Mode Parameter tables below illustrate the correct state of these input parameters (circuits) in correspondence to the ignition switch position or ignition mode switch with the transmitter to vehicle range:

Power Mode Parameters

Power Mode	Power Mode Transmitted	Push Button Ignition Switch (Power Button Switch Circuit Input to the BCM)	Push Button Ignition Switch Voltage Push Button Ignition Switch Voltage Input to the BCM	Key in Cylinder Switch/Key Fob in Vehicle (Transmitter in Range to the BCM Signal)
Transmitter in Range	OFF	Inactive	9 V	Yes

Transmitter out of Range	OFF	Inactive	9 V	No
Vehicle On Power Mode, then Press the Power Button Switch (Foot on or OFF the Brake Pedal) Transmitter in Vehicle	OFF	Active (pushed) / Inactive (not pushed)	5-6 V (pressed)	Yes
Vehicle OFF Power Mode, then Press the Power Button Switch with foot OFF the Brake Pedal; Transmitter in Vehicle	Accessory Mode	Active (pushed) / Inactive (not pushed)	5-6 V (pressed)	Yes
Vehicle OFF Power Mode, then Press the Power Button Switch with foot on the Brake Pedal; Transmitter in Vehicle	Vehicle in Run/Start Mode (Ignition ON engine running.)	Active (pushed) / Inactive (not pushed)	5-6 V (pressed)	Yes
Vehicle OFF Power Mode, then Press and Hold the Power Button Switch for 5 s with foot OFF the Brake Pedal; Transmitter in Vehicle	Vehicle in Run/Start Mode (Ignition ON without the engine running)	Active (pushed) / Inactive (not pushed)	5-6 V (pressed)	Yes
Vehicle OFF Power Mode, then Press and Hold the Power Button Switch for 10 s with foot OFF the Brake Pedal; Transmitter in Vehicle	Vehicle In Service Mode (Ignition ON without the engine running)	Active (pushed) / Inactive (not pushed)	5-6 V (pressed)	Yes

Relay Controlled Power Mode

The BCM and keyless entry control module use discrete push button switch inputs, transmitter in range status, current power mode state, transmission shift lever position, and brake pedal position state to distinguish the correct power mode (OFF, Accessory Mode, Vehicle in Run/Start Mode). The BCM and keyless entry control module, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay remains on for a timed period after the Ignition is turned OFF. Refer to CELL Link Error - Link target cell (cell ID 148337) is invalid for this publication. for more information on the retained accessory power function.

Push Button Start

The ignition mode switch has 2 LEDs that indicate the vehicle power mode. When the vehicle is in the OFF mode, both LED’s will be OFF. Momentarily pressing the ignition mode switch button once (brake pedal not applied), will enter the vehicle into accessory mode and the amber LED (ACC) will illuminate. The accessory mode has a 10 min time out to reduce battery drain. With the ignition OFF (brake pedal not applied) then pressing and holding the push button start switch for 5 s will place the vehicle in run/start mode (Ignition ON without the engine running). The vehicle will stay powered up for 5 hours and the green LED (Run/Start) will illuminate. After being in run/start mode (ignition ON without the engine running) for 2.5 hours, the vehicle will look to see if the transmitter is still present. If the transmitter is not present in the vehicle, it will power down instead of staying powered up for the full 5 hours. With the ignition OFF, (brake pedal not applied) then pressing and holding the push button start switch for at least 10 s will place the vehicle into Vehicle In Service Mode (Ignition ON without the engine running) and the green LED (Run/Start) will illuminate. Vehicle In Service Mode is used for service and diagnostics not requiring the operation of the gas engine. The vehicle will stay in Vehicle In Service mode until the vehicle is manually turned OFF.

With the ignition OFF (brake pedal applied), pressing the ignition mode switch button once, the vehicle will enter run/start mode and the green LED (Run/Start) will illuminate. This will start the engine. If the vehicle is left in PARK with the engine running and the transmitter out of the vehicle, the vehicle will automatically turn off after 1.5 hours. If the vehicle is left in PARK with the engine running and the transmitter in the vehicle, the vehicle will automatically turn OFF after 3 hours. The timer will stop when the vehicle is shifted out of PARK and the timer will reset after the vehicle is placed back in PARK with the engine running.

Both LED’s have the voltage supplied from the body control module (BCM). The ignition mode switch sends the ignition mode switch status to the passive entry passive start module (PEPS) and to the BCM. The PEPS module sends a redundant signal to the BCM with the ignition mode switch status.

Battery Saver Mode (Transport Mode)

Battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode, such as disabling keyless entry, afterblow, and content theft features. Battery saver mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning the ignition key to the start position or pushing the ignition mode switch with the foot on the brake for greater than 15 s. The mode is disengaged by repeating the previous process. The driver information center (if equipped) will display Transport Mode is On when battery saver mode is enabled and Transport Mode is OFF when battery saver mode is disabled. For vehicles not equipped with a driver information center, the battery indicator light will constantly flash on the Instrument Cluster when battery saver mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

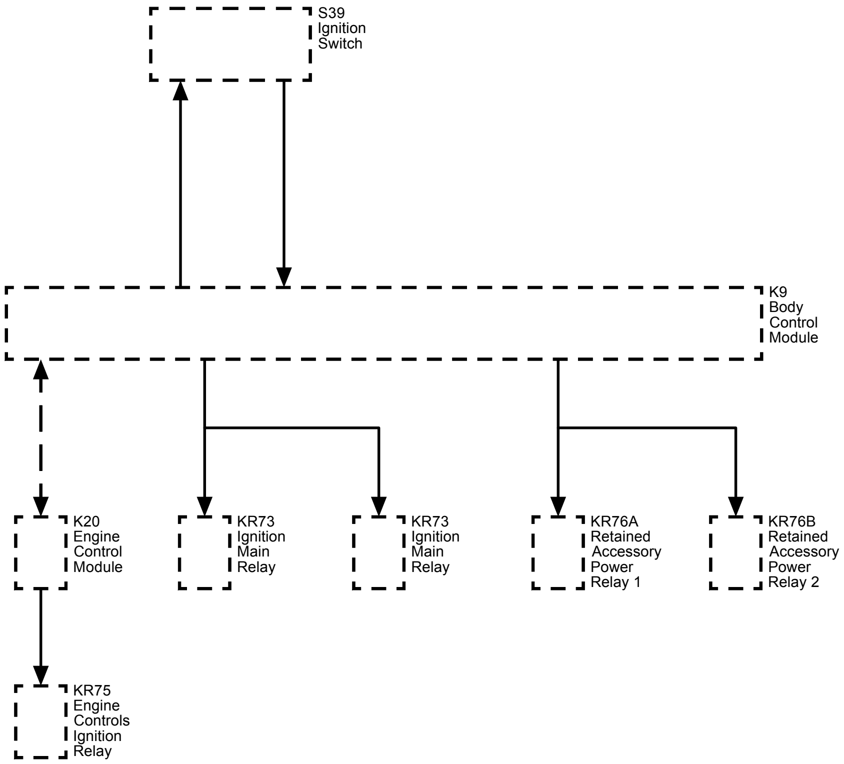
- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Power Mode Description and Operation (Without BTM)

Serial Data Power Mode Master

Power Moding Description and Operation Block Diagram



Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle’s body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The power mode master receives ignition switch signals to identify the operators desired power mode. The Power Mode Parameter tables below illustrate the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off/Run/Crank (Off/Run Crank Voltage Circuit)	Ignition Accessory/Run (Accessory Voltage Circuit)	Ignition Run/Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out / ACC	Inactive	Inactive
Off Key IN	Off	Key In / Off	Inactive	Inactive
Accessory	Accessory	Key Out / ACC	Active	Inactive

Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The BCM uses the discrete ignition switch inputs Off/Run/Crank Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay 1 and retained accessory power relay 2 remain on for a timed period after the Ignition key is removed. Refer to CELL Link Error - Link target cell (cell ID 148337) is invalid for this publication. for more information on the retained accessory power function.

Battery Saver Mode (Transport Mode)

Battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode, such as disabling keyless entry, afterblow, and content theft features. Battery saver mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning the ignition key to the start position or pushing the ignition mode switch with the foot on the brake for greater than 15 seconds. The mode is disengaged by repeating the previous process. The driver information center (if equipped) will display Transport Mode is On when battery saver mode is enabled and Transport Mode is Off when battery saver mode is disabled. For vehicles not equipped with a driver information center, the battery indicator light will constantly flash on the Instrument Cluster when battery saver mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

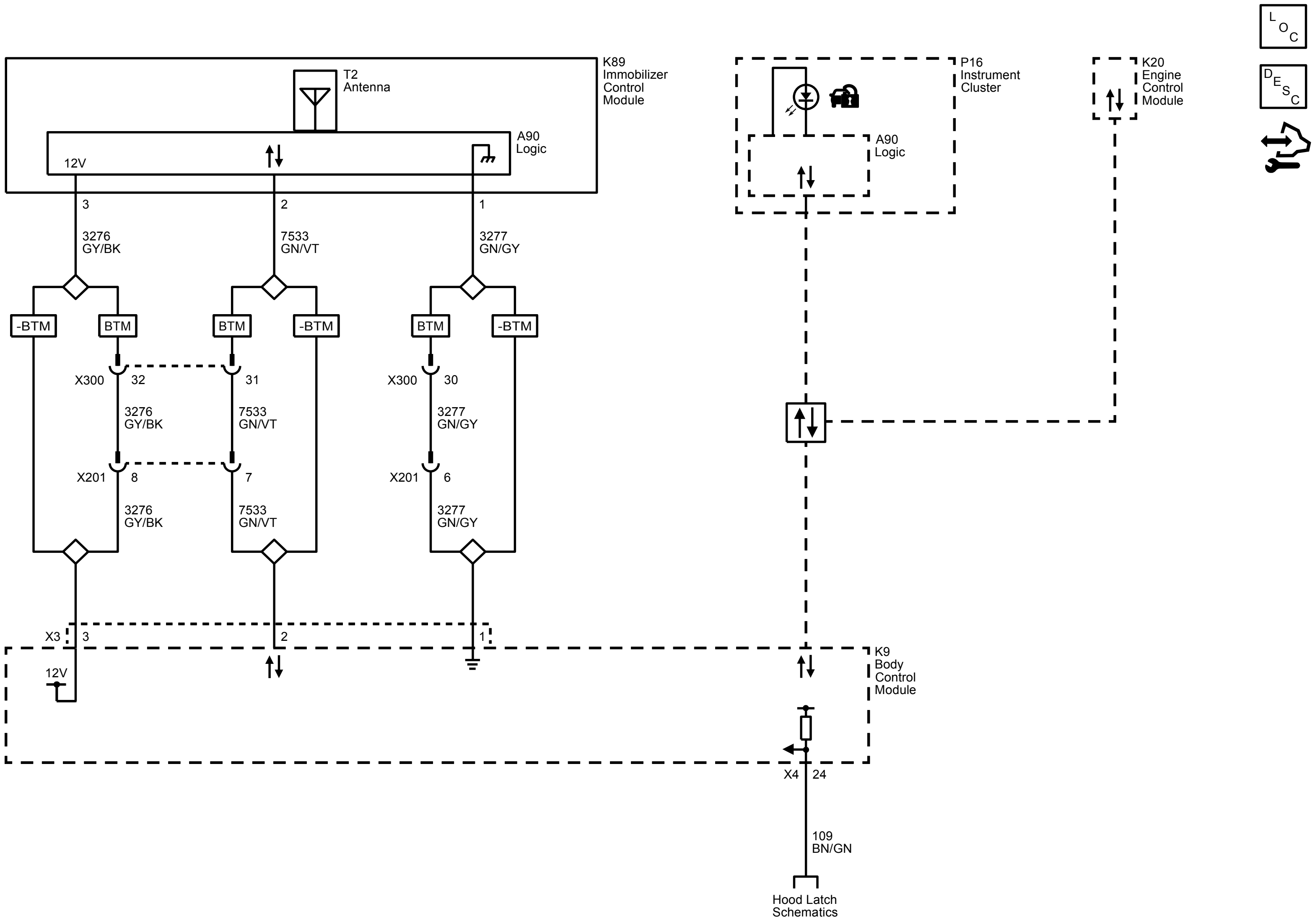
Safety and Security

Immobilizer

Schematic and Routing Diagrams

Immobilizer Schematics

Immobilizer



T2
Antenna
K89
Immobilizer
Control
Module
A90
Logic
12V
3
2
1
3276
GY/BK
7533
GN/VT
3277
GN/GY
-BTM
BTM
BTM
-BTM
BTM
-BTM
X300
32
31
X300
30
3276
GY/BK
7533
GN/VT
3277
GN/GY
X201
8
7
X201
6
3276
GY/BK
7533
GN/VT
3277
GN/GY
X3
3
2
1
12V
K9
Body
Control
Module
X4
24
109
BN/GN
Hood Latch
Schematics
P16
Instrument
Cluster
A90
Logic
K20
Engine
Control
Module
LOC
DESC

Repair Instructions

Programming Additional Keys (without BTM)

The Adding Keys procedure does not erase any keys prior to programming. The procedure will simply program the key into the next available slot. The Adding Keys procedure should only be used when adding an additional key to the vehicle. The Adding Keys procedure should never be used to program a key to a vehicle that is having a key replaced, regardless of the cause for the replacement.

Using the Replacing Keys procedures will first erase all the known keys from the vehicle. Any existing keys and any new keys will then be programmed. This procedure should be used any time a key is required to be unlearned or erased from a vehicle. If a new key is being learned to a vehicle to replace a damaged, inoperative, or stolen key, the Replacing Keys procedure must be used. This ensures that the old key cannot be used to access or start the vehicle after programming. Refer to Replacing Keys (without BTM).

Adding Keys (Without SPS) – North America, except Canada

Note:

- To initiate, this procedure requires that 1 learned key be available.
- A total of 8 keys maybe be learned to a single vehicle.
- This procedure adds keys only. The procedure does not erase previously learned keys.
- The keys to be learned must duplicate the mechanical cut of the current key.

1. With a previously learned key, turn the ignition ON.
2. Turn the ignition OFF and remove the key.
3. Within 10 seconds of turning OFF the ignition, insert the key to be learned and turn ON the ignition. The vehicle has now learned the new key.

Adding Keys (Without SPS) – Canada, Europe, South America, Asia, and Middle East

Note:

- To initiate, this procedure requires that 2 learned key be available.
- A total of eight keys maybe be learned to a single vehicle.
- This procedure adds keys only. The procedure does not erase previously learned keys.
- The keys to be learned must duplicate the mechanical cut of the current key.

1. With a previously learned key, turn the ignition ON.
2. Turn the ignition OFF and remove the key.
3. With a second previously learned key, turn the ignition ON.
4. Turn the ignition OFF and remove the key.
5. Within 10 seconds of turning OFF the ignition, insert the key to be learned and turn ON the ignition. The vehicle has now learned the new key.

Adding Keys (With SPS) – North America

Note:

- This procedure may be used with or without existing learned keys being present.
- A total of eight keys maybe be learned to a single vehicle.
- This procedure will only learn the vehicle key information. This procedure will not learn any immobilizer information between the body control module (BCM) and engine control module (ECM).
- If the battery voltage is low, charge the battery before continuing with the procedure.

1. Connect a scan tool to the vehicle and access SPS.
2. Ensure that all power consuming devices are turned OFF on the vehicle.
3. Select the SPS application and follow the on-screen instructions.
4. Select Reprogram ECU.
5. Select IMMO Immobilizer Learn - Setup.
6. Select the Program Transponder or Remote Key (Add) function.
7. Follow the on-screen instructions.
8. After programming all keys, “Programming Complete” is displayed.
9. With a scan tool, clear any DTCs.
10. Verify each key is operating properly.

Replacing Keys (without BTM)

Keys can be programmed in various ways using the procedures outlined below. Using the Replacing Keys procedures will first erase all the known keys from the vehicle. Any existing keys and any new keys will then be programmed. This procedure should be used any time a key is required to be unlearned or erased from a vehicle. If a new key is being learned to a vehicle to replace a damaged, inoperative, or stolen key, the Replacing Keys procedure must be used. This ensures that the old key cannot be used to access or start the vehicle after programming.

The Adding Keys procedure does not erase any keys prior to programming. Adding Keys will simply program the key into the next available slot. The Adding Keys procedure should only be used when programming an additional key to the vehicle. The Adding Keys procedure should never be used to program a key to a vehicle that is having a key replaced, regardless of the cause for the replacement.

With SPS

Note:

- This procedure may be used with or without existing learned keys being present.
- A total of eight keys maybe be learned to a single vehicle.
- This procedure will only learn the vehicle key information. This procedure will not learn any immobilizer information between the body control module (BCM) and engine control module (ECM).
- If the battery voltage is low, charge the battery before continuing with the procedure.

1. Connect a scan tool to the vehicle and access SPS.
2. Ensure that all power consuming devices are turned OFF on the vehicle.
3. Select the SPS application and follow the on-screen instructions.
4. Select Reprogram ECU.
5. Select IMMO Immobilizer Learn - Setup.
6. Select the Program Transponder or Remote Key (Delete) function.
7. Follow the on-screen instructions.
8. After programming all keys, “Programming Complete” is displayed.
9. With a scan tool, clear any DTCs.
10. Verify each key is operating properly.

Without SPS (United States and Mexico only)

Note:

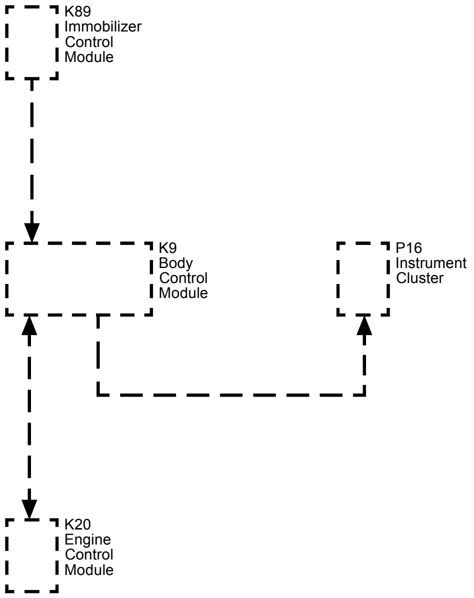
- This procedure should be used without existing learned keys being present.
- A total of eight keys maybe be learned to a single vehicle.
- This procedure will only learn the vehicle key information. This procedure will not learn any immobilizer information between the body control module (BCM) and engine control module (ECM).
- If the battery voltage is low, charge the battery before continuing with the procedure.

1. With an unlearned master vehicle key, turn ON the ignition, with the engine OFF.
2. Observe the security indicator, after approximately 10 min the indicator will turn off.
3. Turn OFF the ignition and wait 5 s.
4. Repeat steps 1 - 3 two more times for a total of 3 cycles or 30 min.
5. Start the vehicle. The vehicle has now learned the key transponder information.
6. Additional keys may be learned using the Adding Keys procedure. Refer to Programming Additional Keys (without BTM).
7. Clear all DTCs.

Description and Operation

Immobilizer Description and Operation

Without BTM



The immobilizer system functions are provided by the Immobilizer Control Module, the Body Control Module (BCM) and the Engine Control Module (ECM), as well as any modules which store and report the environment identifier.

When an ignition key is inserted into the ignition lock cylinder and the ignition is turned ON, the transponder in the key is energized by the immobilizer coil surrounding the ignition lock cylinder. This immobilizer coil is part of the Immobilizer Control Module. The transponder transmits a signal that contains its unique value, which is received by the BCM through the Immobilizer Control Module. The BCM then compares this value to a value stored in memory. The BCM also monitors various control modules to determine if the stored environment identifiers match.

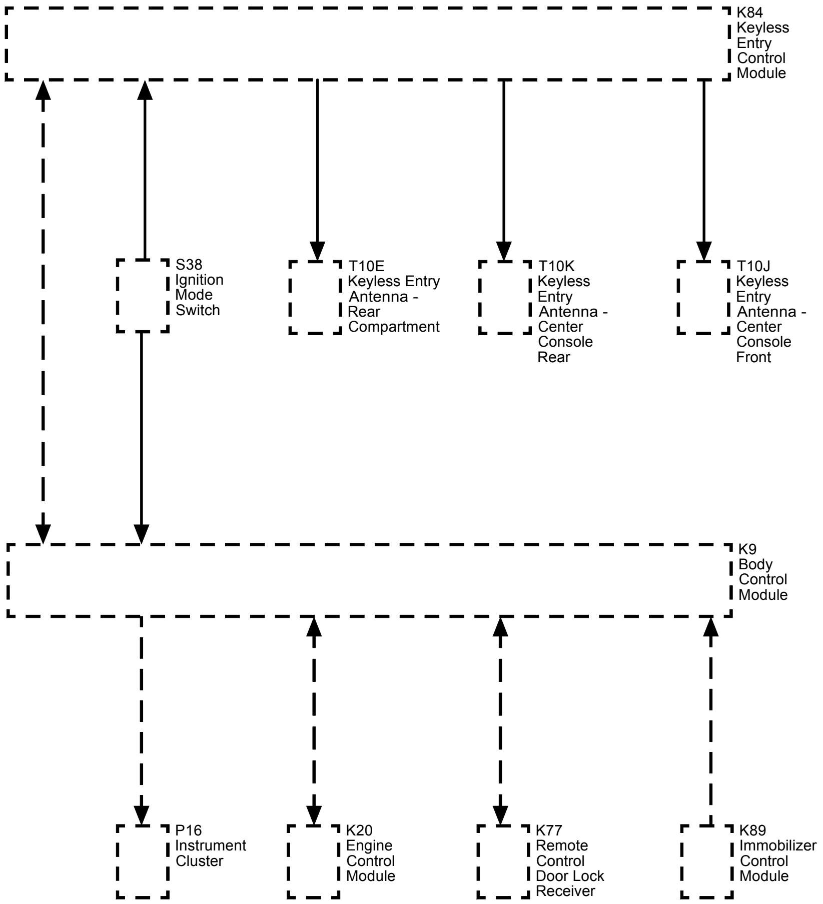
If both the environment identifier and the value received from the transponder match, the BCM will send the prerelease password via serial data to the ECM. If the encrypted code's unique value is incorrect or the environment identifier does not match, the BCM will send the fuel disable message to the ECM.

When the ECM receives the BCM prerelease password, the ECM will challenge the password. The ECM sends this challenge to the BCM via serial data. Both the ECM and BCM perform a calculation on this challenge. If the BCM calculated response to the challenge equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The components of the immobilizer system are as follows:

- BCM
- ECM
- Immobilizer Control Module
- Ignition key
- Security indicator
- Various control modules which store and report the environment identifier

With BTM


K84
Keyless Entry Control Module
S38
Ignition Mode Switch
T10E
Keyless Entry Antenna - Rear Compartment
T10K
Keyless Entry Antenna - Center Console Rear
T10J
Keyless Entry Antenna - Center Console Front
K9
Body Control Module
P16
Instrument Cluster
K20
Engine Control Module
K77
Remote Control Door Lock Receiver
K89
Immobilizer Control Module

The immobilizer system functions are provided by the Keyless Entry Control Module, the Remote Control Door Lock Receiver, the Immobilizer Control Module, the Body Control Module (BCM) and the Engine Control Module (ECM), as well as any control modules which store and report the environment identifier. The Keyless Entry Control Module uses low frequency antennas in three different locations on the vehicle to determine the location of the transmitter. Multiple antenna are used to ensure complete coverage of the vehicle interior and rear compartment.

When the vehicle ON/OFF switch is pressed, the low frequency antennas emit a challenge to the keyless entry transmitter. The transmitter receives this challenge and emits it's response as an RF message. The transmitter transmits a signal that contains its unique value, which is received by the BCM through the Remote Control Door Lock Receiver. The BCM then compares this value to a value stored in memory. The BCM also monitors various control modules to determine if the stored environment identifiers match.

If both the environment identifier and the value received from the transponder match, the BCM will send the prerelease password via serial data to the ECM. If the encrypted code's unique value is incorrect or the environment identifier does not match, the BCM will send the fuel disable message to the ECM.

When the ECM receives the BCM prerelease password, the ECM will challenge the password. The ECM sends this challenge to the BCM via serial data. Both the ECM and BCM perform a calculation on this challenge. If the BCM calculated response to the challenge equals the calculation performed by the ECM, the ECM will allow vehicle starting.

If RF communication is interrupted, a "No Remote Detected" message will be displayed on the DIC. In these cases, the transmitter can be placed in the transmitter slot/slot. The Immobilizer Control Module is located in the immediate vicinity of the transmitter pocket/slot. Placing the transmitter in the pocket/slot will create a low powered coupling between the transmitter and Immobilizer Control Module, allowing communications to occur and enabling vehicle starting.

The components of the immobilizer system are as follows:

- BCM
- ECM
- Remote Control Door Lock Receiver
- Immobilizer Control Module
- Low frequency antenna
- Ignition key/Keyless entry transmitter
- Security indicator

- Various control modules which store and report the environment identifier

Body Control Module (BCM)

The immobilizer system is an integral part of the BCM and is controlled internally within the BCM. The BCM can learn up to 8 keys (transponder values).

The BCM uses the following inputs:

- Environment identifier exchange with various modules
- Encrypted code from the vehicle key, received by the Immobilizer Control Module
- Encrypted code from the vehicle key, received by the Remote Control Door Lock Receiver (with BTM)

The BCM uses the following outputs:

- Prerelease password communication with ECM
- Challenge/response with ECM

When a transponder value is received by the BCM, the BCM will compare this value to the learned key code stored in memory. The BCM then performs one of the following functions:

- If the encrypted code value matches the values stored in the BCM memory, the BCM will send the prerelease password to the ECM via serial data.
- If the encrypted code unique value does not match the value stored in the BCM, the BCM will send the start disable message to the ECM via serial data.
- If the BCM is unable to measure the ignition key encrypted code value, the BCM will not send any messages to the ECM.

Engine Control Module (ECM)

When the ECM receives the BCM prerelease password, the ECM will challenge the password. The ECM sends this challenge to the BCM via the serial data circuit. Both the ECM and BCM perform a calculation on this challenge. If the calculated response from the BCM equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The ECM will disable vehicle starting if any of the following immobilization conditions occur:

- The prerelease password is invalid.
- The start disable password is sent by the BCM.
- No passwords are received. There is no communication with the BCM.
- The BCM calculated response to the challenge does not equal the calculation performed by the ECM.

Immobilizer Control Module

The Immobilizer Control Module contains an immobilizer coil which surrounds the ignition cylinder (without BTM) or is located near the transmitter pocket/slot (with BTM). The coil passively powers the transponder located in the ignition key. When powered, the key transmits its unique value to the Immobilizer Control Module, which is then relayed to the BCM via a LIN serial data circuit. The Immobilizer Control Module also receives B+ and ground from the BCM.

The Immobilizer Control Module is used to:

1. Learn keys
2. To start vehicle with or without RF interference
3. To start vehicle when key battery is dead

Keyless Entry Control Module (with BTM)

The Keyless Entry Control Module uses low frequency antennas in three different locations on the vehicle to determine the location of the transmitter. Multiple antenna are used to ensure complete coverage of the vehicle interior and rear compartment. The Keyless Entry Control Module monitors the ignition mode switch. When the ignition mode is changed, the Keyless Entry Control Module will command, or “ping”, the low frequency antenna.

Low Frequency Antenna (with BTM)

When commanded, or “pinged”, the low frequency antenna broadcast a challenge to the keyless entry transmitter. Because of the low power of the antenna, this challenge is only broadcast in an approximate three meter range of the antenna. Multiple antenna are used to ensure complete coverage of the vehicle interior and rear compartment.

Remote Control Door Lock Receiver (with BTM)

When the keyless entry transmitter is challenged by a low frequency antenna, is responds by emitting a response as an RF message. The transmitter transmits a signal that contains its unique value, which is received by the Remote Control Door Lock Receiver. The Remote Control Door Lock Receiver relays this information to the BCM via a discreet serial data circuit.

Ignition Key or Keyless Entry Transmitter

Each ignition key or keyless entry transmitter contains a transponder with a unique encrypted value. The transponder's encrypted value is fixed and unable to be changed. The immobilizer system uses the ignition key transponder value to determine if a valid ignition key is being used to start the vehicle.

Environment Identifier

Various modules throughout the vehicle learn a specific environment identifier during the module programming process. The environment identifier is learned by each individual module and matches the environment identifier stored in the BCM. Prior to starting after a battery disconnect, each of the modules which store a environment identifier will compare their identifier to that of the identifier stored in the BCM. If all the identifiers match, the engine starting process will continue. If the environment identifiers do not match, engine starting will be disabled.

Security Indicator

The BCM will command the Instrument Cluster to illuminate the security indicator when the ignition key is in the ON position to indicate a fault has occurred within the immobilizer system and when the engine starting is disabled.

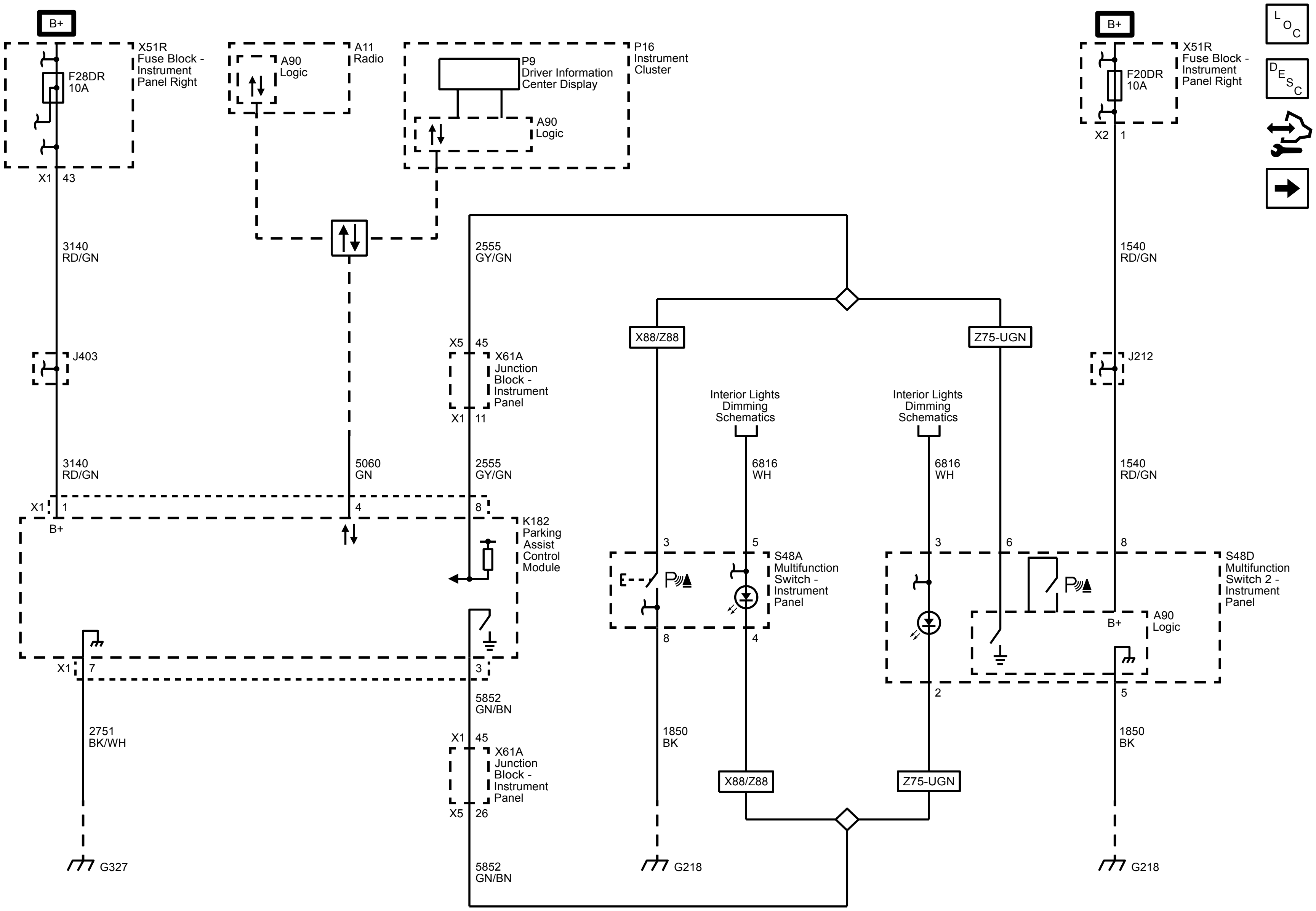
Safety and Security

Object Detection and Pedestrian Protection

Schematic and Routing Diagrams

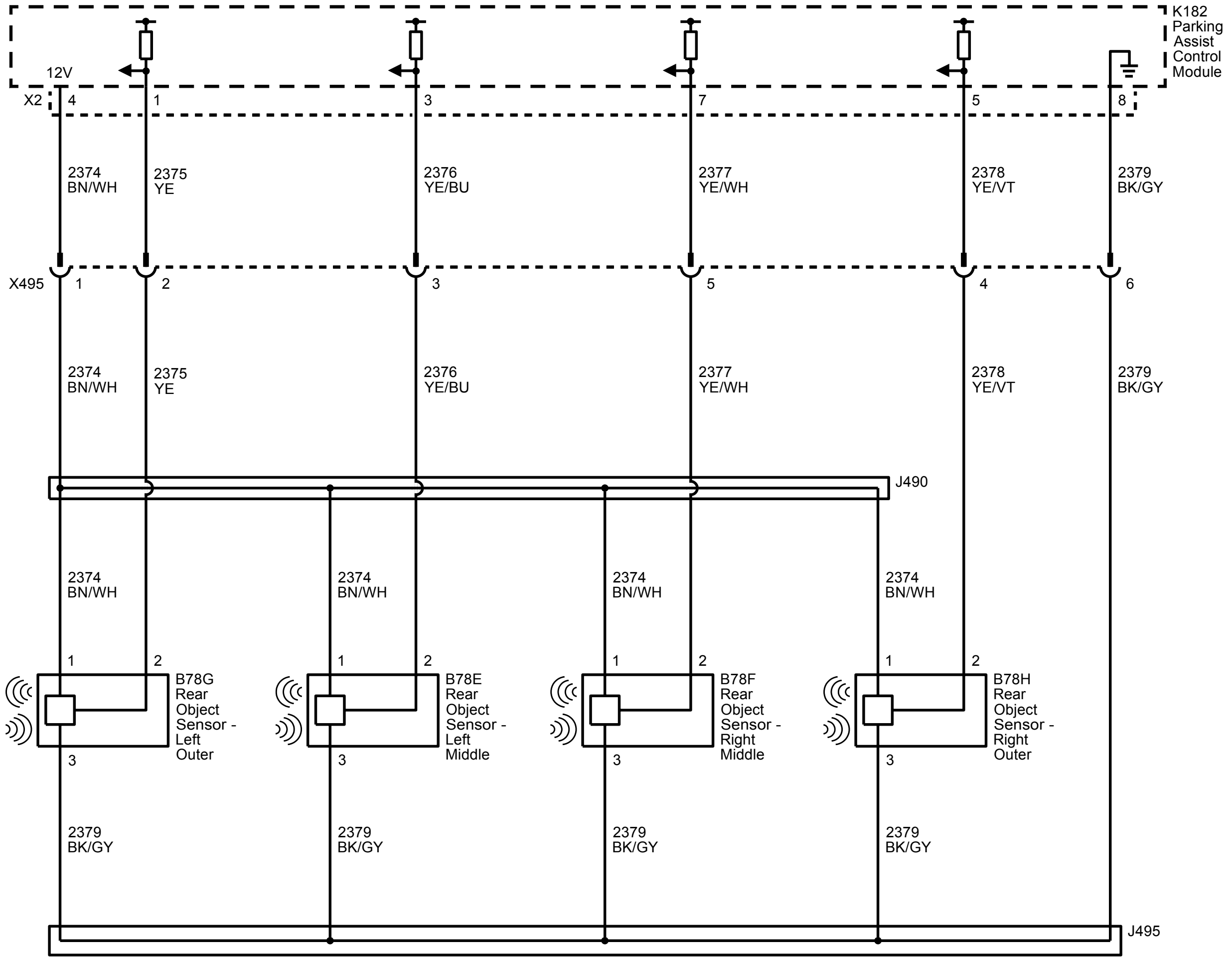
Object Detection Schematics

Park Assist - Power, Ground, and Serial Data (UD5 or UD7)

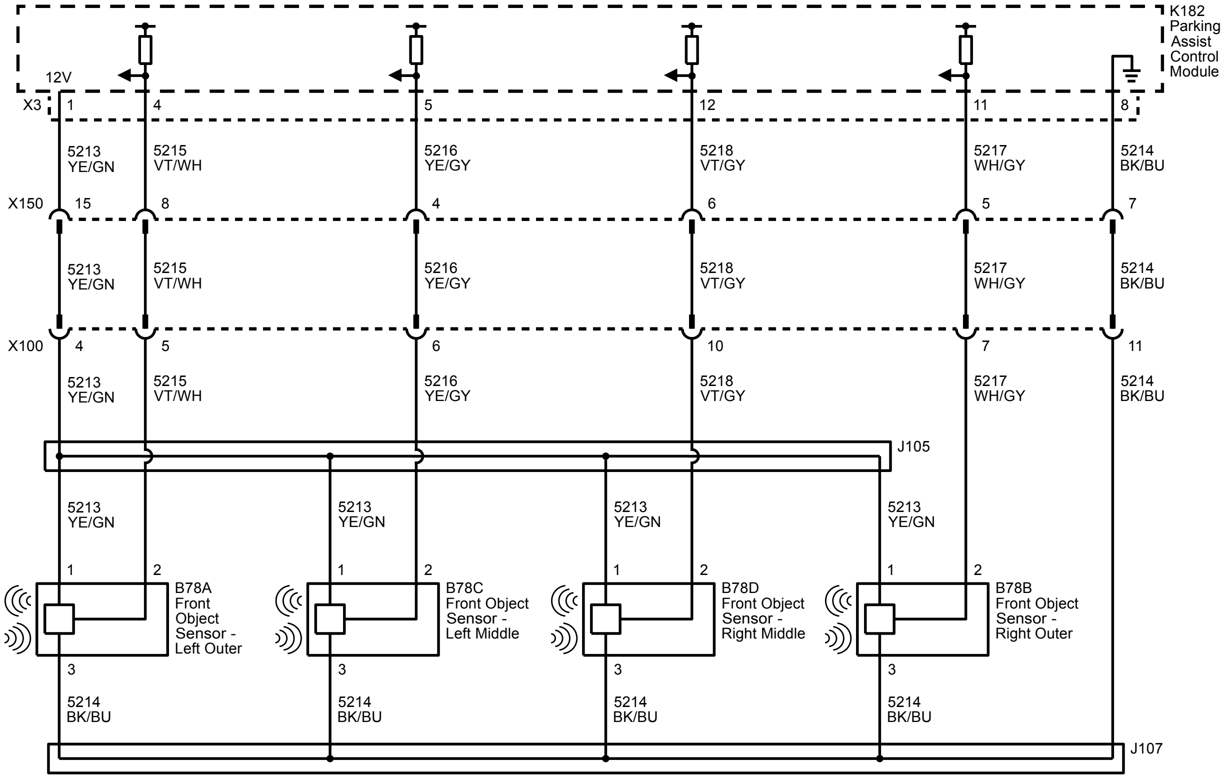


B+
X51R Fuse Block - Instrument Panel Right
F28DR 10A
X1 43
3140 RD/GN
J403
3140 RD/GN
A11 Radio
A90 Logic
5060 GN
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
2555 GY/GN
X5 45
X61A Junction Block - Instrument Panel
X1 11
2555 GY/GN
X1 1
4
8
B+
K182 Parking Assist Control Module
X1 7
3
2751 BK/WH
G327
5852 GN/BN
X1 45
X61A Junction Block - Instrument Panel
X5 26
5852 GN/BN
X88/Z88
Z75-UGN
Interior Lights Dimming Schematics
6816 WH
3
5
S48A Multifunction Switch - Instrument Panel
8
4
1850 BK
G218
X88/Z88
Interior Lights Dimming Schematics
6816 WH
3
6
8
S48D Multifunction Switch 2 - Instrument Panel
B+
A90 Logic
2
5
Z75-UGN
1850 BK
G218
B+
X51R Fuse Block - Instrument Panel Right
F20DR 10A
X2 1
1540 RD/GN
J212
1540 RD/GN
LOC
DESC

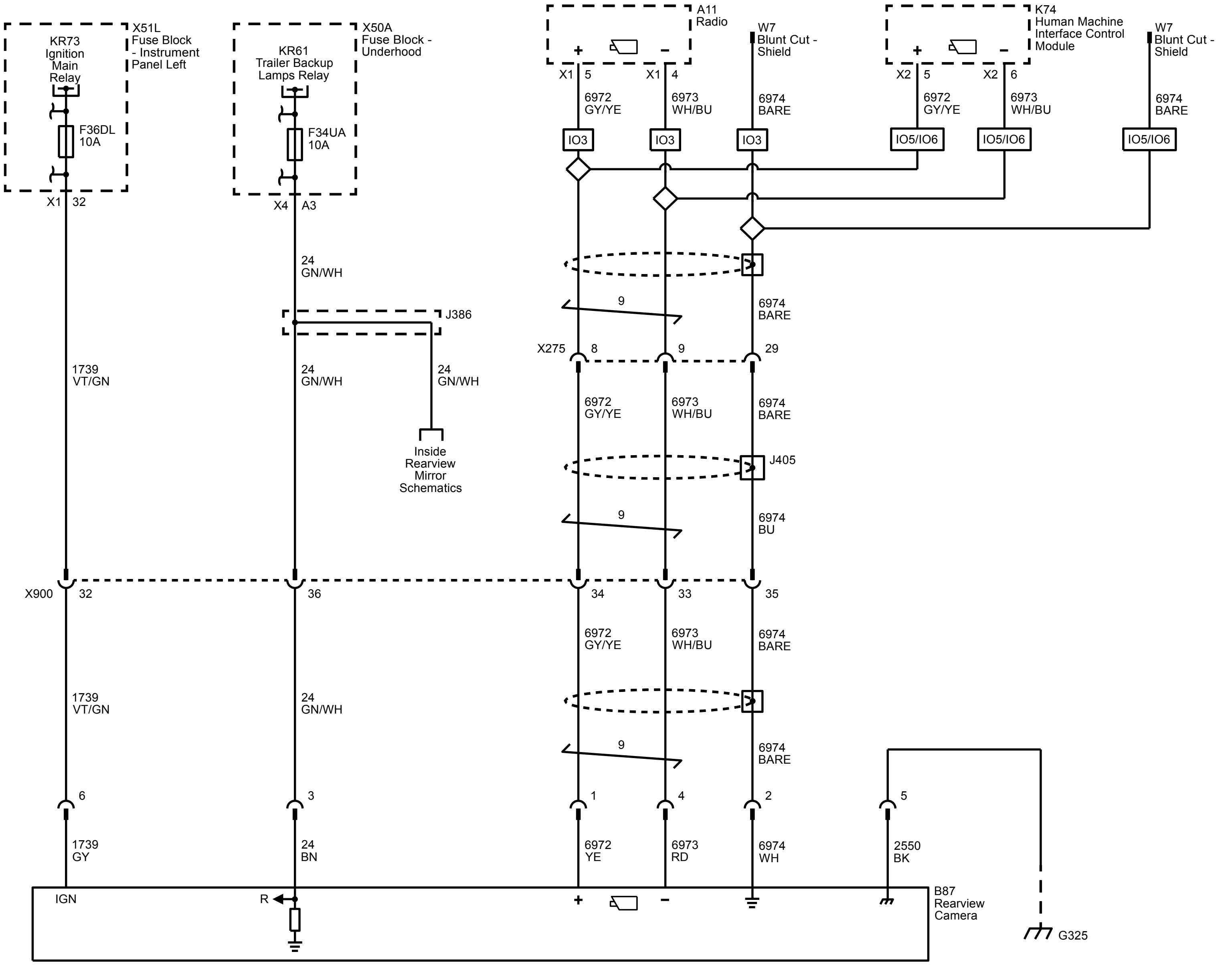
Park Assist - Rear Sensors (UD5 or UD7)


K182 Parking Assist Control Module
12V
X2
4
1
3
7
5
8
2374 BN/WH
2375 YE
2376 YE/BU
2377 YE/WH
2378 YE/VT
2379 BK/GY
X495
1
2
3
5
4
6
2374 BN/WH
2375 YE
2376 YE/BU
2377 YE/WH
2378 YE/VT
2379 BK/GY
J490
2374 BN/WH
2374 BN/WH
2374 BN/WH
2374 BN/WH
1
2
B78G Rear Object Sensor - Left Outer
3
1
2
B78E Rear Object Sensor - Left Middle
3
1
2
B78F Rear Object Sensor - Right Middle
3
1
2
B78H Rear Object Sensor - Right Outer
3
2379 BK/GY
2379 BK/GY
2379 BK/GY
2379 BK/GY
J495

Park Assist - Front Sensors (UD5)

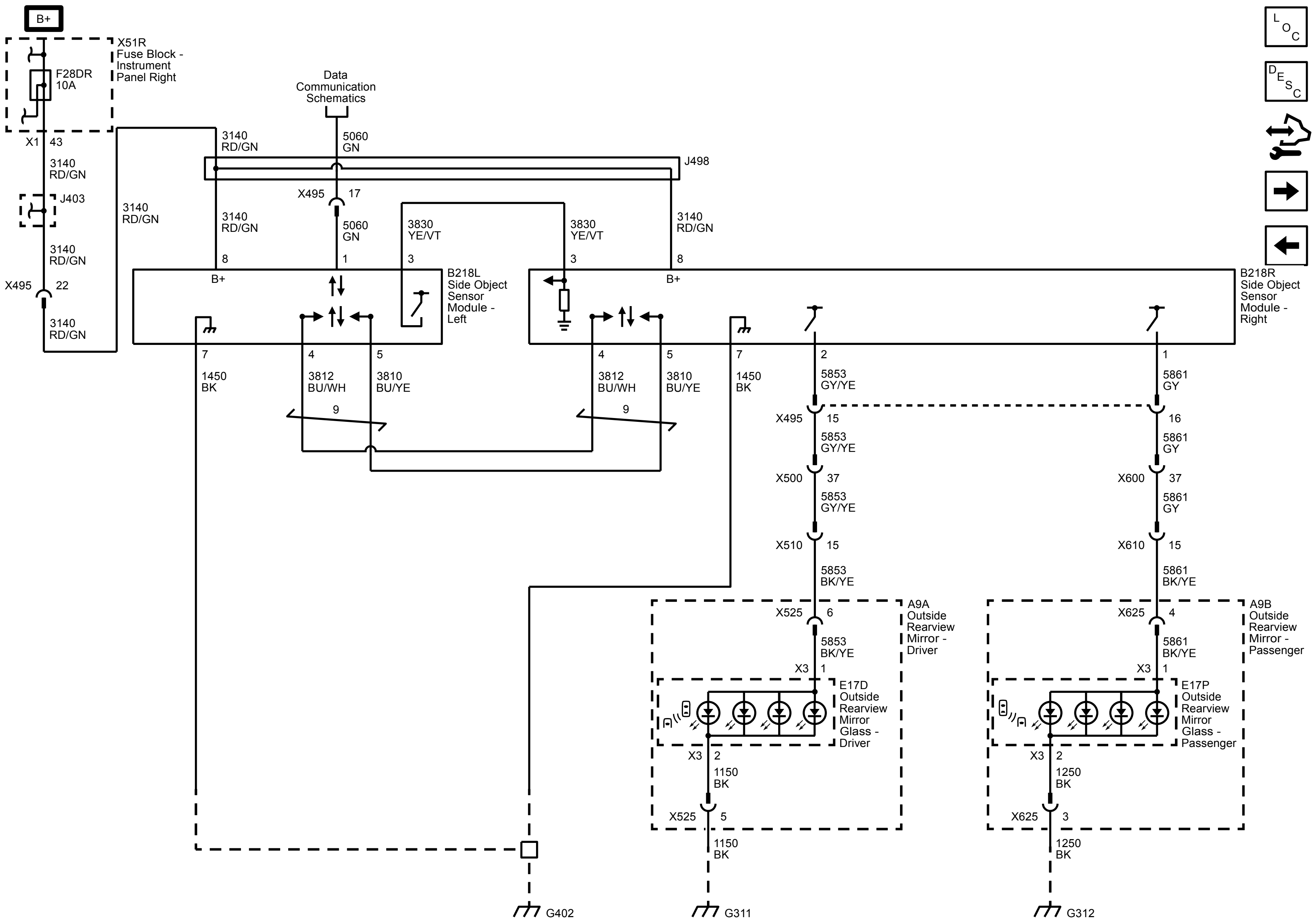

K182 Parking Assist Control Module
12V
X3
1
4
5
12
11
8
5213 YE/GN
5215 VT/WH
5216 YE/GY
5218 VT/GY
5217 WH/GY
5214 BK/BU
X150
15
8
4
6
5
7
5213 YE/GN
5215 VT/WH
5216 YE/GY
5218 VT/GY
5217 WH/GY
5214 BK/BU
X100
4
5
6
10
7
11
5213 YE/GN
5215 VT/WH
5216 YE/GY
5218 VT/GY
5217 WH/GY
5214 BK/BU
J105
5213 YE/GN
5213 YE/GN
5213 YE/GN
5213 YE/GN
1
2
B78A Front Object Sensor - Left Outer
1
2
B78C Front Object Sensor - Left Middle
1
2
B78D Front Object Sensor - Right Middle
1
2
B78B Front Object Sensor - Right Outer
3
3
3
3
5214 BK/BU
5214 BK/BU
5214 BK/BU
5214 BK/BU
J107

Rear Vision Camera (UVC)

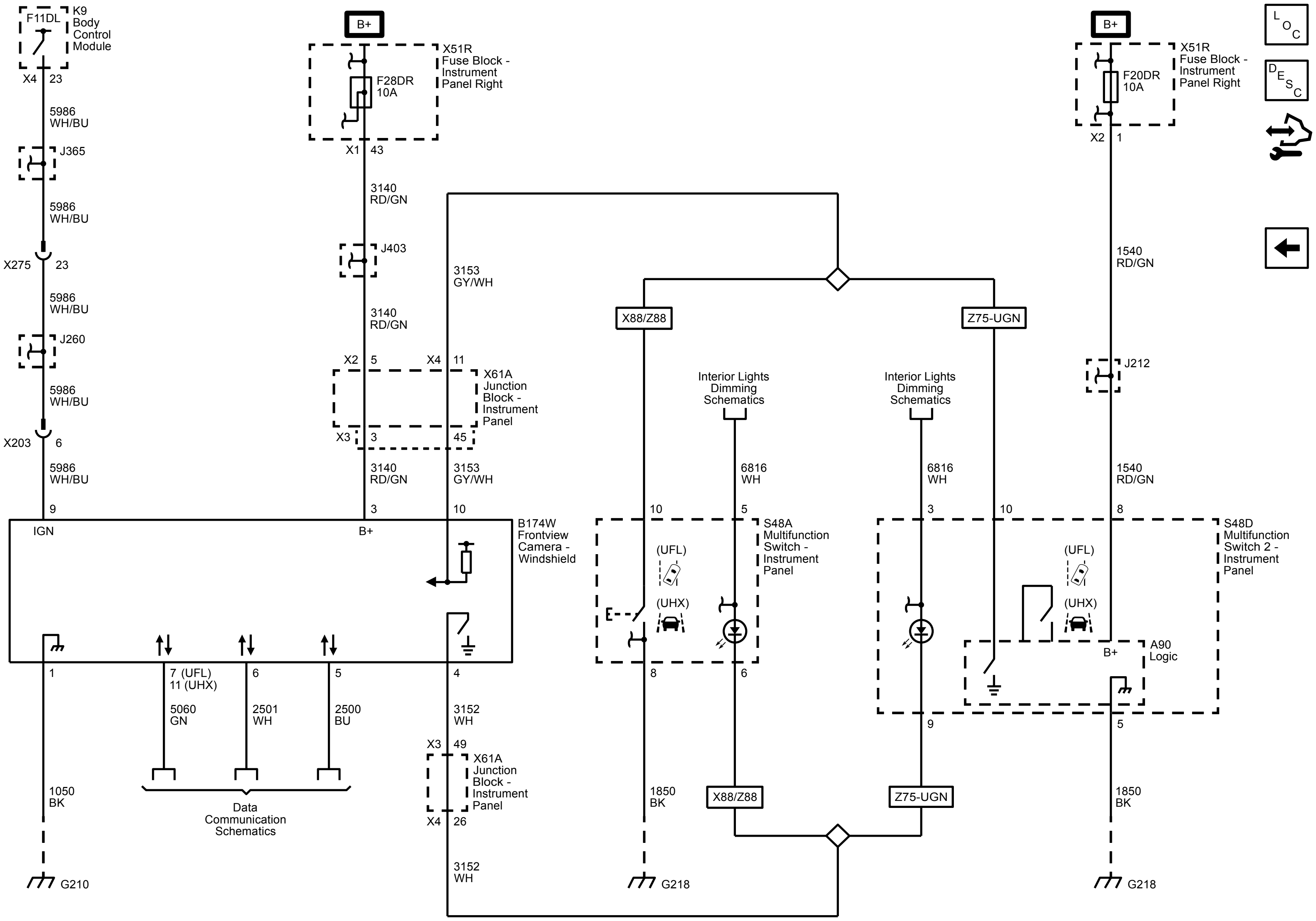

KR73 Ignition Main Relay
X51L Fuse Block - Instrument Panel Left
F36DL 10A
X1 32
KR61 Trailer Backup Lamps Relay
X50A Fuse Block - Underhood
F34UA 10A
X4 A3
A11 Radio
W7 Blunt Cut - Shield
K74 Human Machine Interface Control Module
W7 Blunt Cut - Shield
X1 5
X1 4
X2 5
X2 6
6972 GY/YE
6973 WH/BU
6974 BARE
IO3
IO5/IO6
24 GN/WH
J386
24 GN/WH
Inside Rearview Mirror Schematics
1739 VT/GN
9
X275 8 9 29
J405
6974 BU
X900 32 36 34 33 35
6 3 1 4 2 5
1739 GY
24 BN
6972 YE
6973 RD
6974 WH
2550 BK
IGN
R
+
−
B87 Rearview Camera
G325

LOC
DESC

Side Blind Zone Alert (UKC)

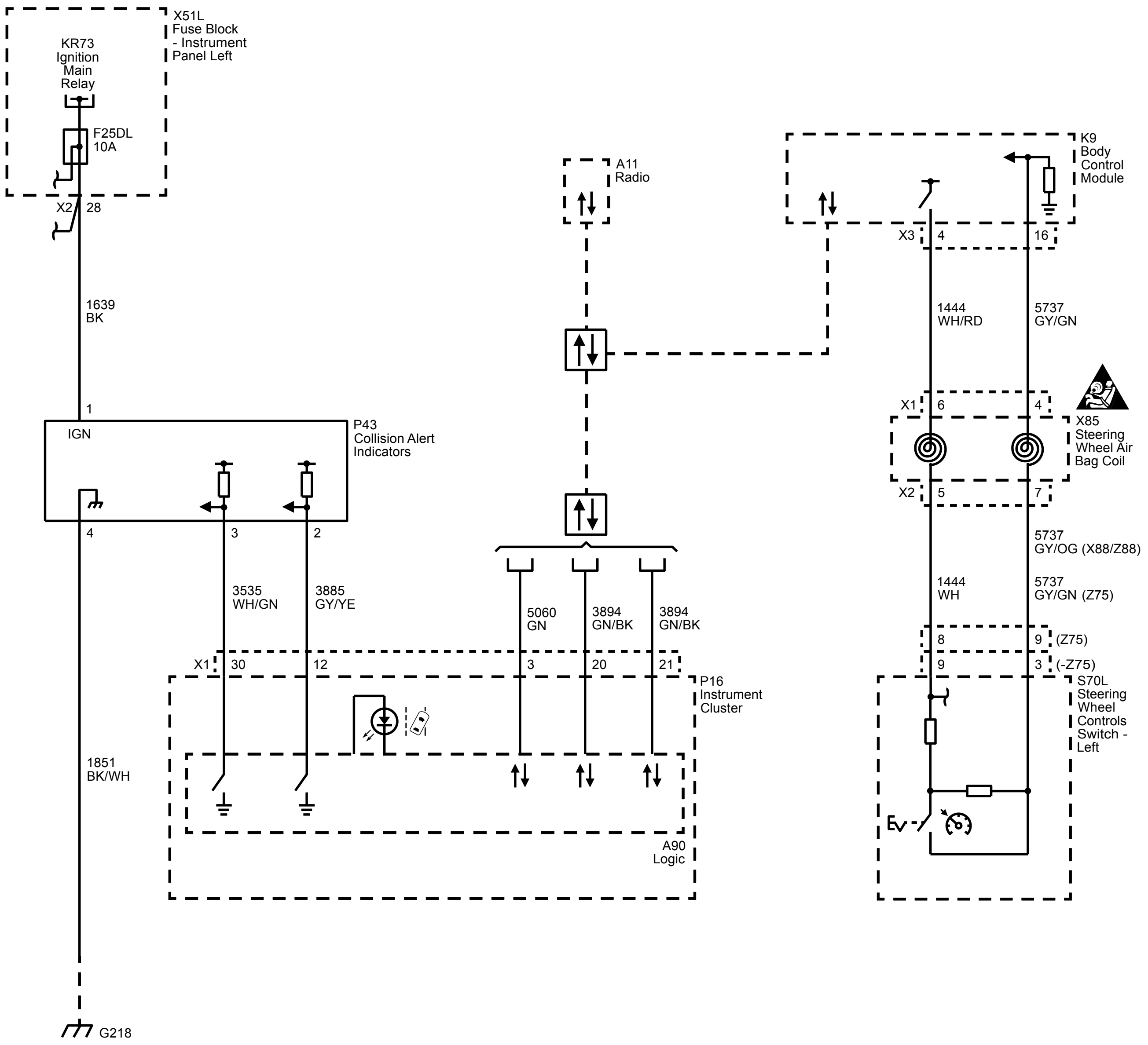

B+
X51R Fuse Block - Instrument Panel Right
F28DR 10A
X1 43
3140 RD/GN
J403
3140 RD/GN
X495 22
3140 RD/GN
3140 RD/GN
Data Communication Schematics
3140 RD/GN
5060 GN
J498
X495 17
3140 RD/GN
5060 GN
3830 YE/VT
3830 YE/VT
3140 RD/GN
8
1
3
3
8
B+
B218L Side Object Sensor Module - Left
B+
B218R Side Object Sensor Module - Right
7
4
5
4
5
7
2
1
1450 BK
3812 BU/WH
3810 BU/YE
3812 BU/WH
3810 BU/YE
1450 BK
5853 GY/YE
5861 GY
9
9
X495 15
16
5853 GY/YE
5861 GY
X500 37
X600 37
5853 GY/YE
5861 GY
X510 15
X610 15
5853 BK/YE
5861 BK/YE
X525 6
A9A Outside Rearview Mirror - Driver
X625 4
A9B Outside Rearview Mirror - Passenger
5853 BK/YE
5861 BK/YE
X3 1
X3 1
E17D Outside Rearview Mirror Glass - Driver
E17P Outside Rearview Mirror Glass - Passenger
X3 2
X3 2
1150 BK
1250 BK
X525 5
X625 3
1150 BK
1250 BK
G402
G311
G312

Lane Departure Warning and Keep Assist (UEU, UFL or UHX) (1 of 2)

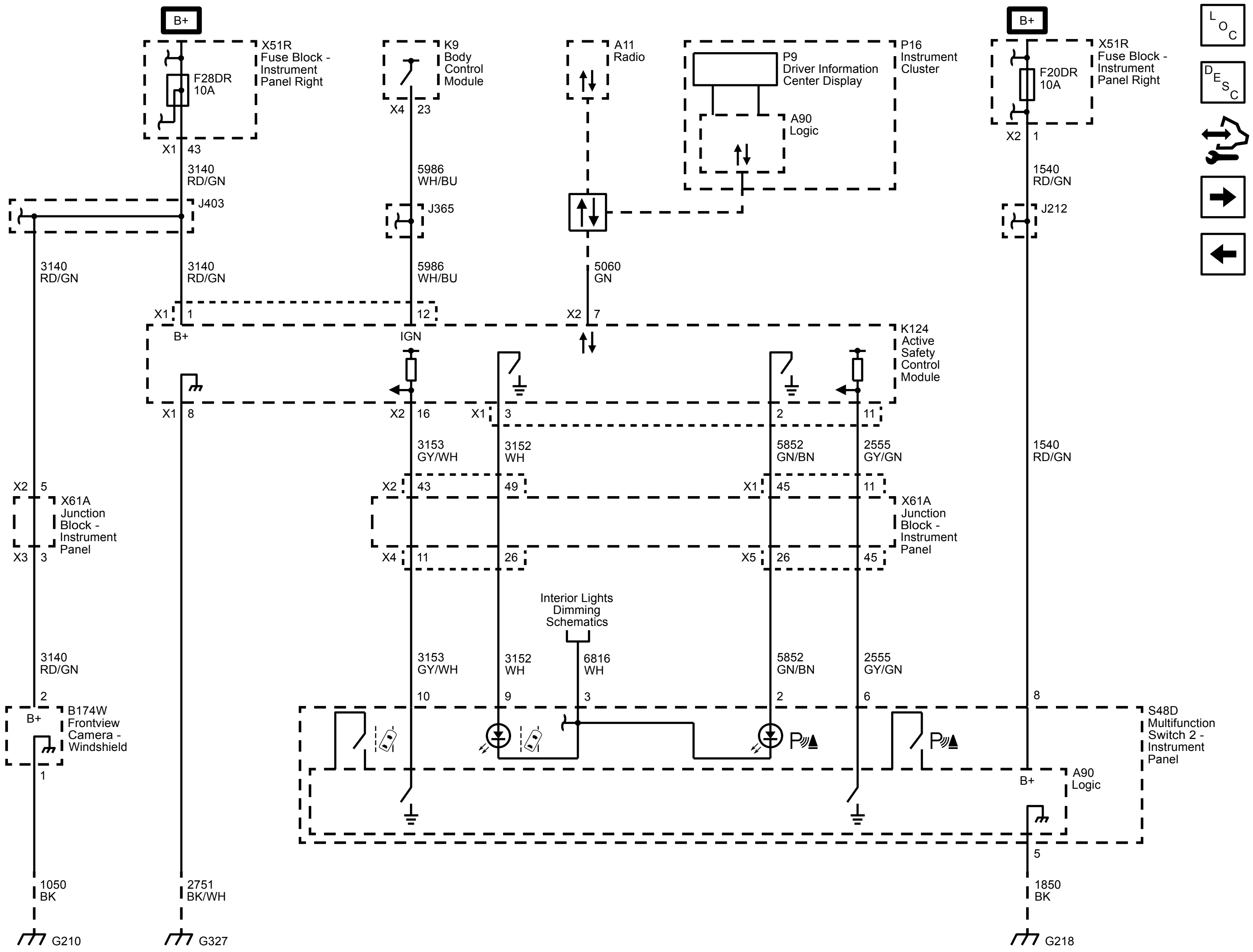


F11DL
K9 Body Control Module
X4 23
5986 WH/BU
J365
5986 WH/BU
X275 23
5986 WH/BU
J260
5986 WH/BU
X203 6
5986 WH/BU
9
IGN
B+
X51R Fuse Block - Instrument Panel Right
F28DR 10A
X1 43
3140 RD/GN
J403
3140 RD/GN
X2 5
X4 11
X61A Junction Block - Instrument Panel
X3 3
45
3140 RD/GN
3153 GY/WH
3153 GY/WH
3
10
B174W Frontview Camera - Windshield
1
7 (UFL) 11 (UHX)
6
5
4
5060 GN
2501 WH
2500 BU
3152 WH
X3 49
X61A Junction Block - Instrument Panel
X4 26
3152 WH
1050 BK
Data Communication Schematics
G210
X88/Z88
Z75-UGN
Interior Lights Dimming Schematics
Interior Lights Dimming Schematics
6816 WH
6816 WH
10
5
S48A Multifunction Switch - Instrument Panel
(UFL)
(UHX)
8
6
1850 BK
G218
X88/Z88
Z75-UGN
3
10
8
S48D Multifunction Switch 2 - Instrument Panel
(UFL)
(UHX)
A90 Logic
B+
9
5
1850 BK
G218
X51R Fuse Block - Instrument Panel Right
F20DR 10A
X2 1
1540 RD/GN
J212
1540 RD/GN
L O C
D E S C

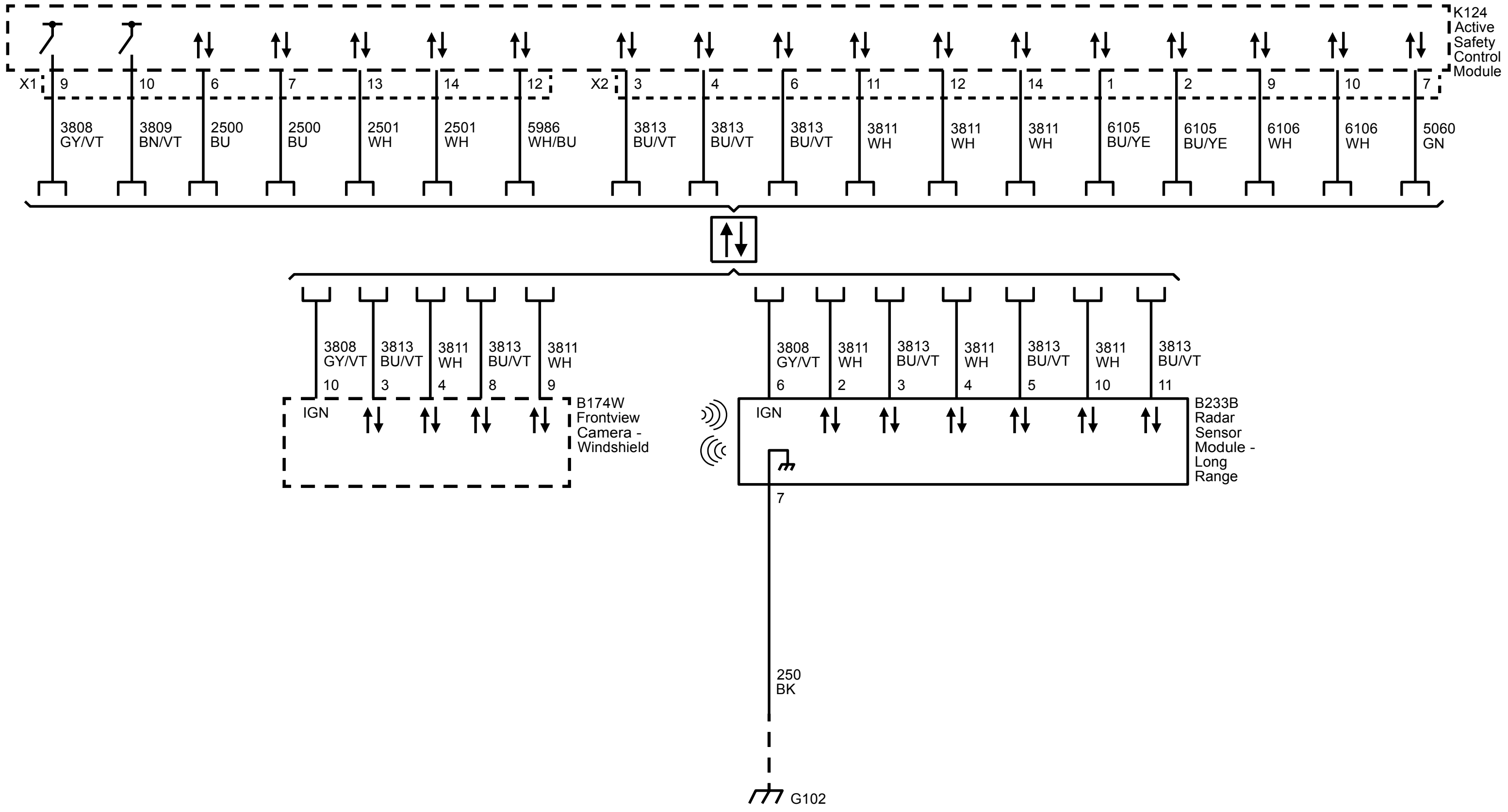
Lane Departure Warning and Keep Assist (UEU, UFL or UHX) (2 of 2)


X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
F25DL 10A
X2 28
1639 BK
1
IGN
P43 Collision Alert Indicators
4
3
2
3535 WH/GN
3885 GY/YE
1851 BK/WH
G218
A11 Radio
5060 GN
3894 GN/BK
3894 GN/BK
X1 30
12
3
20
21
P16 Instrument Cluster
A90 Logic
K9 Body Control Module
X3 4
16
1444 WH/RD
5737 GY/GN
X1 6
4
X85 Steering Wheel Air Bag Coil
X2 5
7
5737 GY/OG (X88/Z88)
1444 WH
5737 GY/GN (Z75)
8
9 (Z75)
9
3 (-Z75)
S70L Steering Wheel Controls Switch - Left

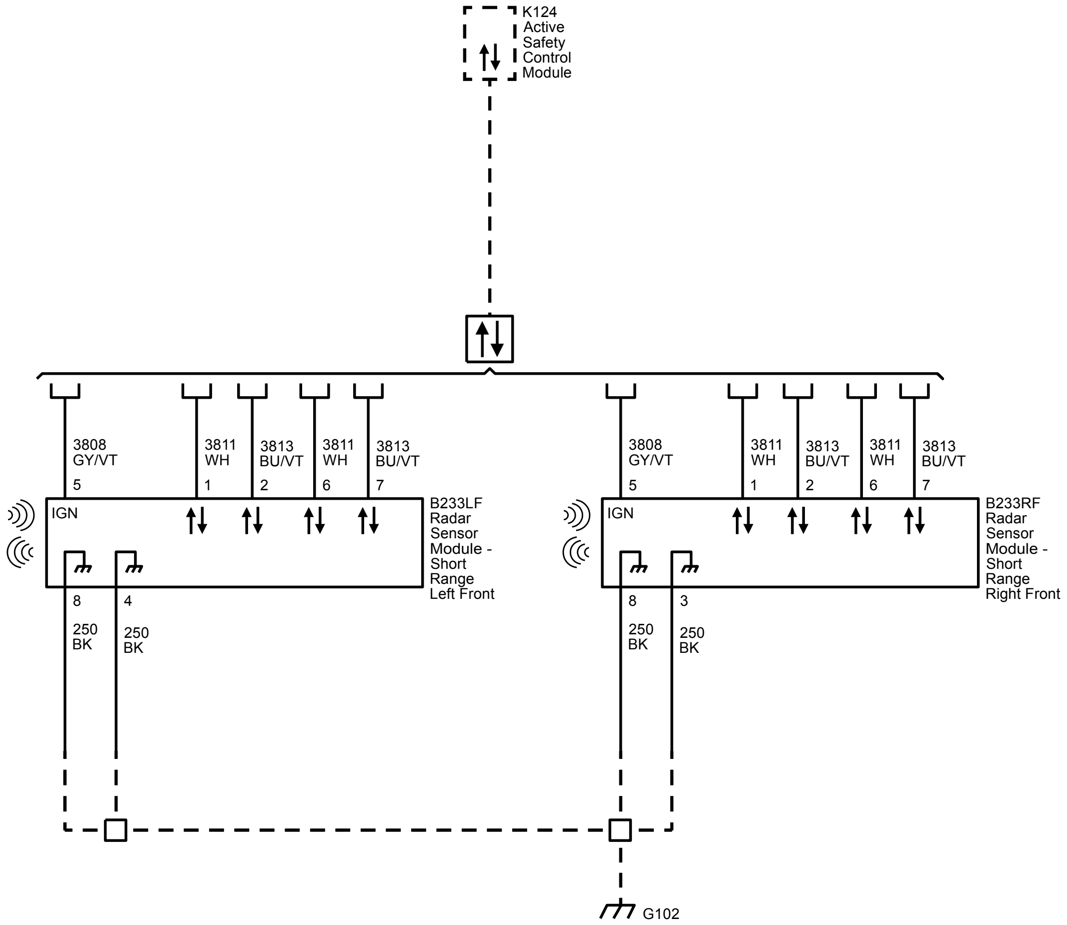
Comprehensive Safety - Power, Ground, Serial Data, and Multifunction Switch (UGN+Z75)

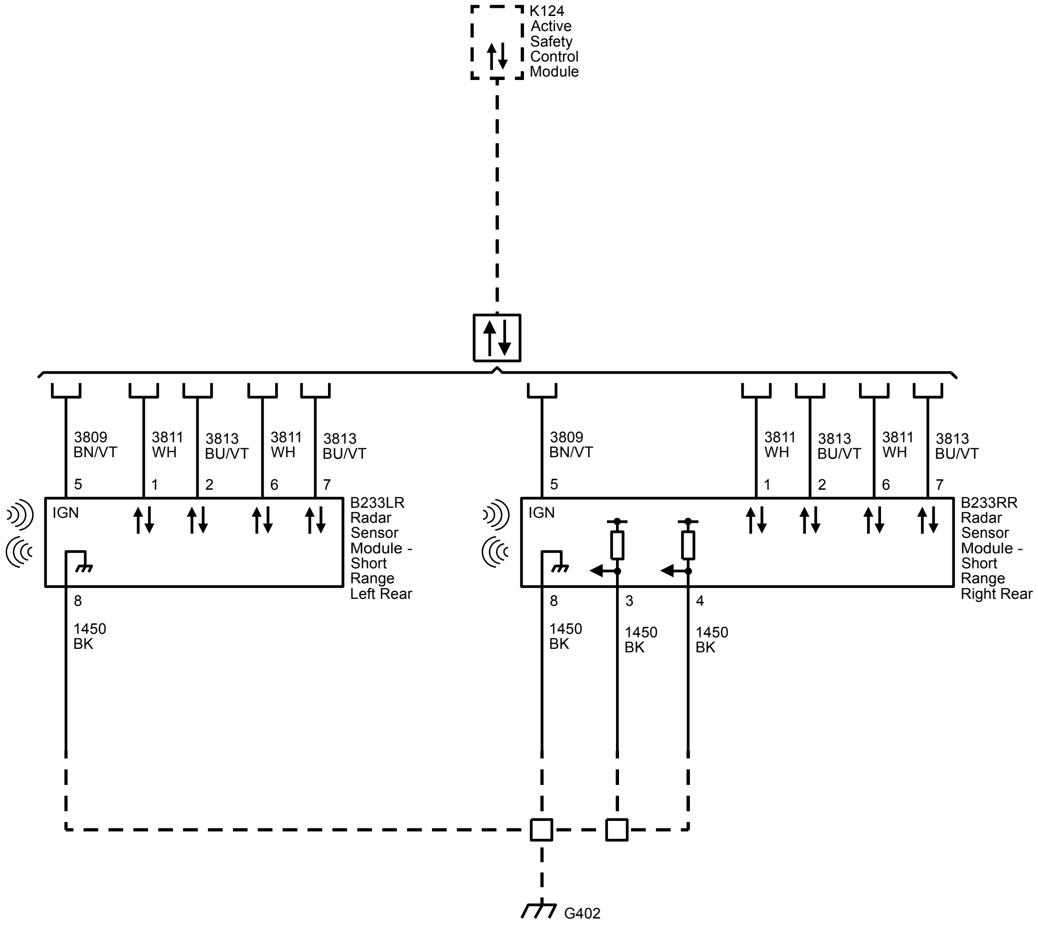

B+
X51R
Fuse Block - Instrument Panel Right
F28DR
10A
X1 43
3140
RD/GN
J403
3140
RD/GN
3140
RD/GN
K9
Body Control Module
X4 23
5986
WH/BU
J365
5986
WH/BU
A11
Radio
5060
GN
P9
Driver Information Center Display
A90
Logic
P16
Instrument Cluster
B+
X51R
Fuse Block - Instrument Panel Right
F20DR
10A
X2 1
1540
RD/GN
J212
X1 1
B+
12
IGN
X2 7
K124
Active Safety Control Module
X1 8
X2 16
X1 3
2
11
3153
GY/WH
3152
WH
5852
GN/BN
2555
GY/GN
1540
RD/GN
X2 5
X61A
Junction Block - Instrument Panel
X3 3
X2 43
49
X1 45
11
X61A
Junction Block - Instrument Panel
X4 11
26
X5 26
45
Interior Lights Dimming Schematics
3140
RD/GN
3153
GY/WH
3152
WH
6816
WH
5852
GN/BN
2555
GY/GN
2
B+
B174W
Frontview Camera - Windshield
1
10
9
3
2
6
8
P
P
S48D
Multifunction Switch 2 - Instrument Panel
B+
A90
Logic
5
1050
BK
2751
BK/WH
1850
BK
G210
G327
G218

Comprehensive Safety - Camera and Front Long Range Radar (UGN+Z75)

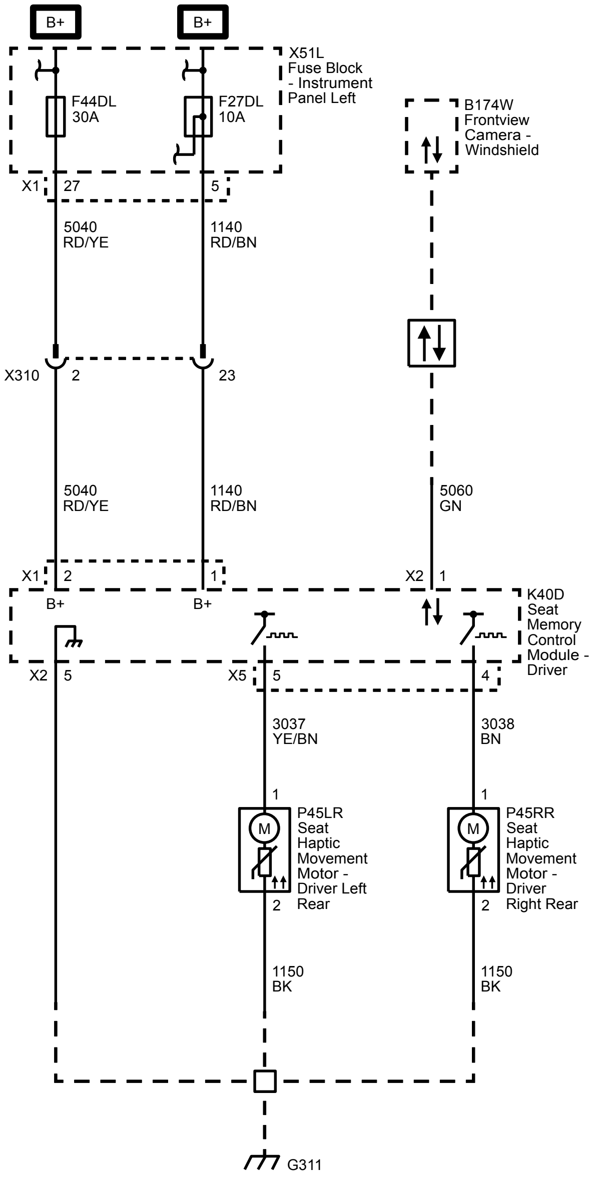

K124 Active Safety Control Module
X1
9
10
6
7
13
14
12
X2
3
4
6
11
12
14
1
2
9
10
7
3808 GY/VT
3809 BN/VT
2500 BU
2500 BU
2501 WH
2501 WH
5986 WH/BU
3813 BU/VT
3813 BU/VT
3813 BU/VT
3811 WH
3811 WH
3811 WH
6105 BU/YE
6105 BU/YE
6106 WH
6106 WH
5060 GN
3808 GY/VT
3813 BU/VT
3811 WH
3813 BU/VT
3811 WH
10
3
4
8
9
IGN
B174W Frontview Camera - Windshield
3808 GY/VT
3811 WH
3813 BU/VT
3811 WH
3813 BU/VT
3811 WH
3813 BU/VT
6
2
3
4
5
10
11
IGN
B233B Radar Sensor Module - Long Range
7
250 BK
G102

Comprehensive Safety - Front Short Range Radar (UVZ)


K124
Active
Safety
Control
Module
3808
GY/VT
5
3811
WH
1
3813
BU/VT
2
3811
WH
6
3813
BU/VT
7
IGN
B233LF
Radar
Sensor
Module -
Short
Range
Left Front
8
250
BK
4
250
BK
3808
GY/VT
5
3811
WH
1
3813
BU/VT
2
3811
WH
6
3813
BU/VT
7
IGN
B233RF
Radar
Sensor
Module -
Short
Range
Right Front
8
250
BK
3
250
BK
G102

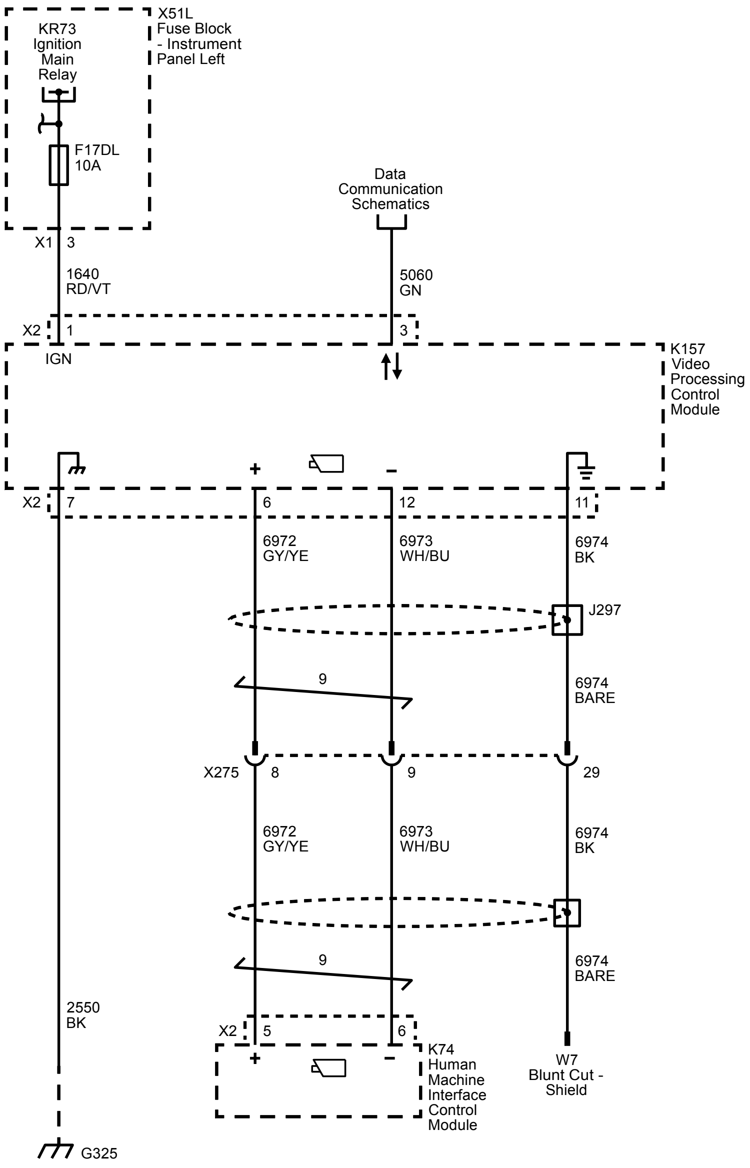

K124
Active
Safety
Control
Module
3809
BN/VT
3811
WH
3813
BU/VT
3811
WH
3813
BU/VT
5
1
2
6
7
IGN
B233LR
Radar
Sensor
Module -
Short
Range
Left Rear
8
1450
BK
3809
BN/VT
3811
WH
3813
BU/VT
3811
WH
3813
BU/VT
5
1
2
6
7
IGN
B233RR
Radar
Sensor
Module -
Short
Range
Right Rear
8
3
4
1450
BK
1450
BK
1450
BK
G402

Seat Haptic Motors (Z75 with UGN)



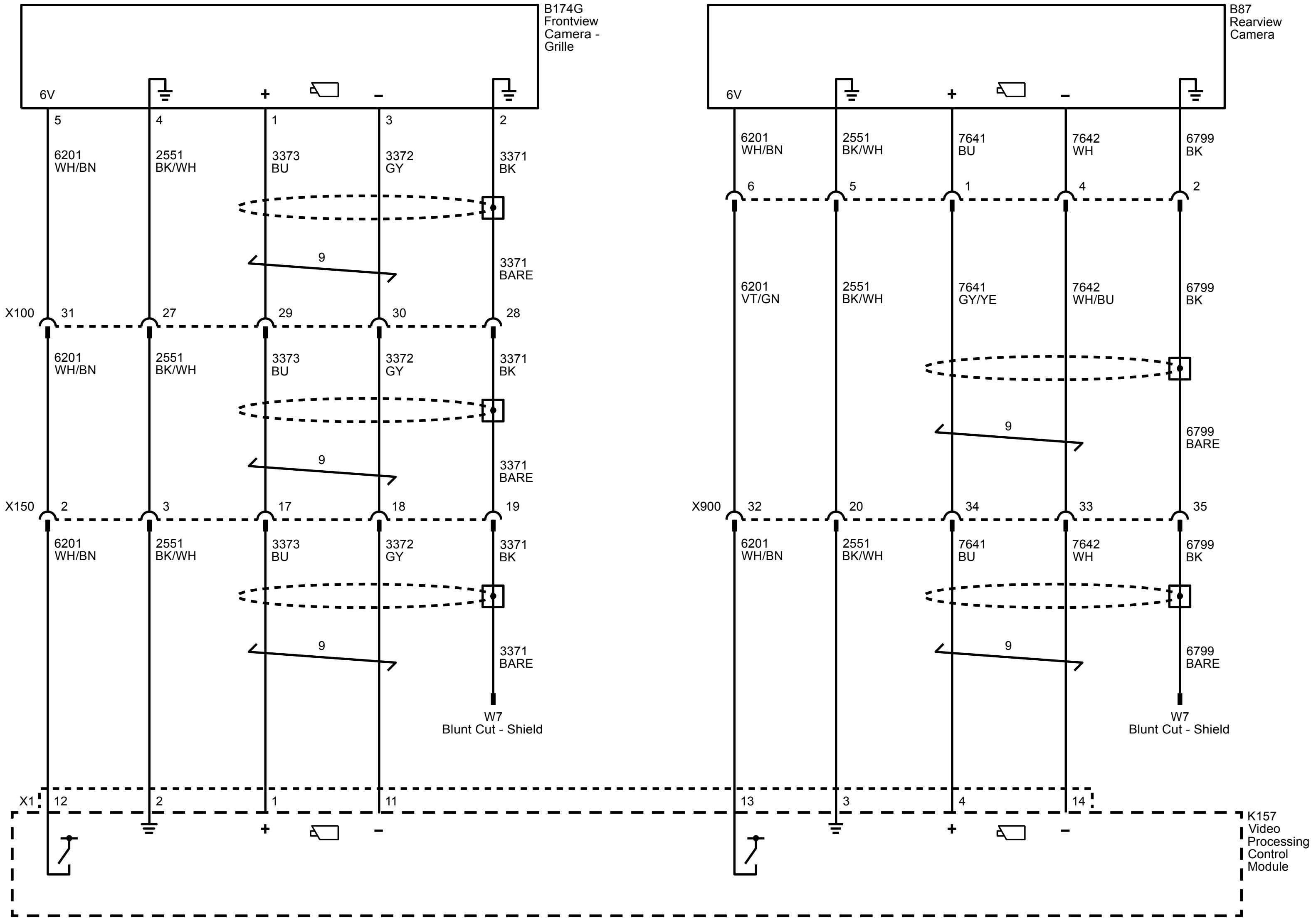
B+
B+
X51L
Fuse Block
- Instrument
Panel Left
F44DL
30A
F27DL
10A
B174W
Frontview
Camera -
Windshield
X1
27
5
5040
RD/YE
1140
RD/BN
X310
2
23
5040
RD/YE
1140
RD/BN
5060
GN
X1
2
1
X2
1
K40D
Seat
Memory
Control
Module -
Driver
B+
B+
X2
5
X5
5
4
3037
YE/BN
3038
BN
1
1
M
M
P45LR
Seat
Haptic
Movement
Motor -
Driver Left
Rear
P45RR
Seat
Haptic
Movement
Motor -
Driver
Right Rear
2
2
1150
BK
1150
BK
G311

360 Degree Vision - Power, Ground, and Serial Data (UVH)



X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
F17DL 10A
X1 3
1640 RD/VT
Data Communication Schematics
5060 GN
X2 1
3
IGN
K157 Video Processing Control Module
+
−
X2 7
6
12
11
6972 GY/YE
6973 WH/BU
6974 BK
J297
9
6974 BARE
X275 8
9
29
6972 GY/YE
6973 WH/BU
6974 BK
9
6974 BARE
2550 BK
X2 5
6
+
−
K74 Human Machine Interface Control Module
W7 Blunt Cut - Shield
G325

360 Degree Vision - Front and Rear Cameras (UVH)


B174G
Frontview
Camera -
Grille
6V
+
-
5
4
1
3
2
6201
WH/BN
2551
BK/WH
3373
BU
3372
GY
3371
BK
9
3371
BARE
X100
31
27
29
30
28
6201
WH/BN
2551
BK/WH
3373
BU
3372
GY
3371
BK
9
3371
BARE
X150
2
3
17
18
19
6201
WH/BN
2551
BK/WH
3373
BU
3372
GY
3371
BK
9
3371
BARE
W7
Blunt Cut - Shield
B87
Rearview
Camera
6V
+
-
6201
WH/BN
2551
BK/WH
7641
BU
7642
WH
6799
BK
6
5
1
4
2
6201
VT/GN
2551
BK/WH
7641
GY/YE
7642
WH/BU
6799
BK
9
6799
BARE
X900
32
20
34
33
35
6201
WH/BN
2551
BK/WH
7641
BU
7642
WH
6799
BK
9
6799
BARE
W7
Blunt Cut - Shield
X1
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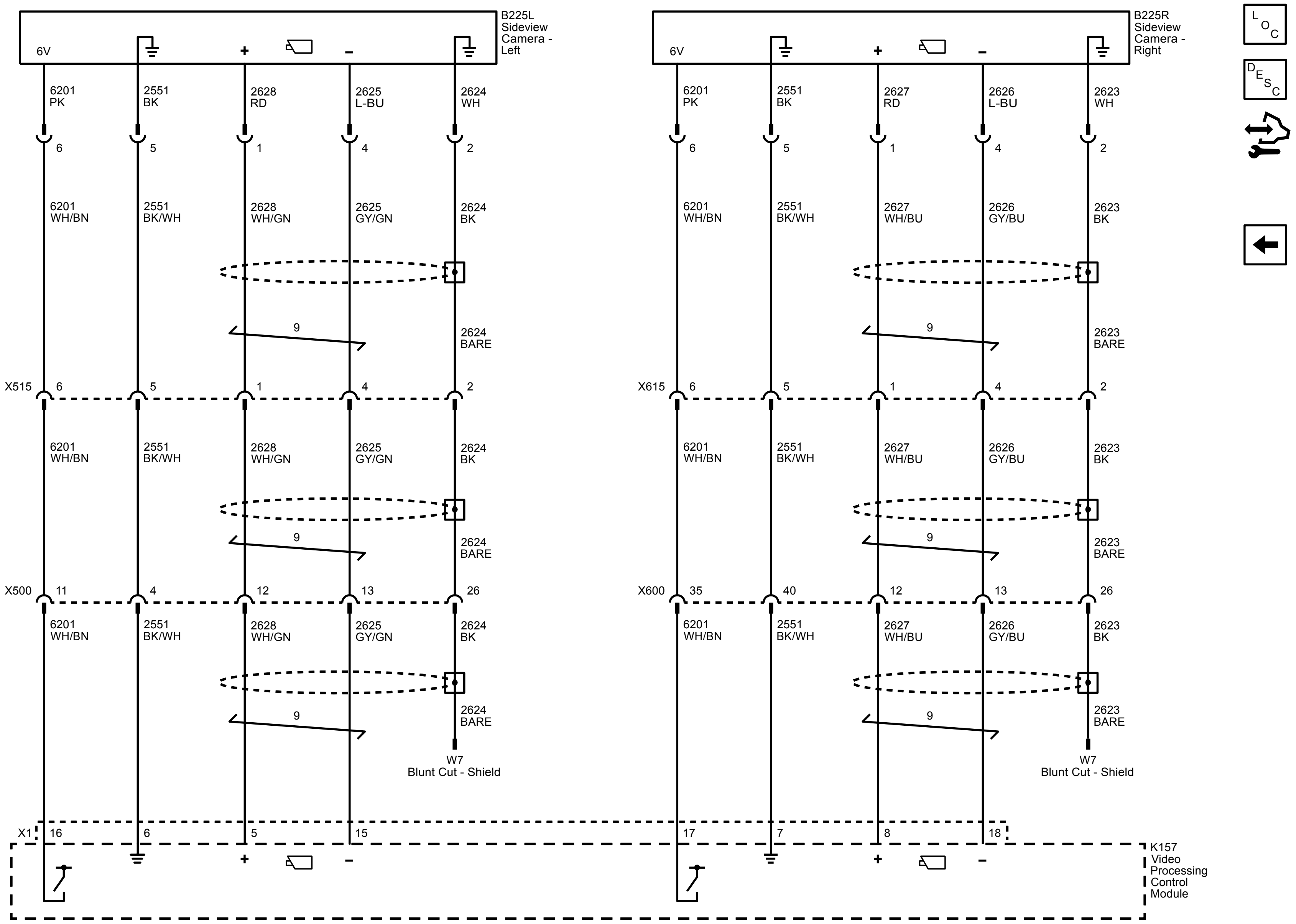
4
14
+
-
+
-
K157
Video
Processing
Control
Module


B225L
Sideview
Camera -
Left
6V
6201 PK
2551 BK
2628 RD
2625 L-BU
2624 WH
6
5
1
4
2
6201 WH/BN
2551 BK/WH
2628 WH/GN
2625 GY/GN
2624 BK
9
2624 BARE
X515
X500
11
4
12
13
26
W7
Blunt Cut - Shield
B225R
Sideview
Camera -
Right
2627 RD
2626 L-BU
2623 WH
2627 WH/BU
2626 GY/BU
2623 BK
2623 BARE
X615
X600
35
40
X1
16
6
5
15
17
7
8
18
K157
Video
Processing
Control
Module
LOC
DESC

Description and Operation

Parking Assist Description and Operation (with UD7)

The parking assist system is designed to identify and notify the driver of an object in the vehicle path when reversing at speeds of less than 8 km/h (5 MPH). The distance and location of the object is determined by four object sensors located in the rear fascia. The parking assist system will notify the driver using audible beeps through the infotainment system.

The parking assist system is made up of the following components:

- Parking assist control module
- Object sensors
- Parking assist switch
- Parking assist switch indicator
- Infotainment system

Parking Assist Control Module

The parking assist control module provides a reference voltage and a low reference to the four object alarm sensors. The parking assist control module receives individual signals from each of the four sensors and determines the location and distance of an object based on these inputs. When an object is detected, the parking assist control module will send a message via serial data to the infotainment system requesting an audible alert.

Object Sensors

The object sensors are located in the rear fascia. The sensors are used to determine the distance between an object and the rear of the vehicle. Each sensor emits an ultrasonic frequency which is reflected off an object behind the vehicle. These reflections are received by the sensors. The time difference between the emission of the frequency and when the reflection is received is known as sensor echo time, it is used to determine the distance to the object. The sensors report this information to the parking assist control module.

Parking Assist Switch

The parking assist system can be activated and deactivated by pressing the parking assist switch. The parking assist control module applies voltage and monitors the parking assist switch signal circuit. The parking assist switch is a normally open switch. With the switch open, voltage seen at the parking assist control module is high. When the parking assist switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the parking assist control module is low. The parking assist control module will respond to this by activating or deactivating the parking assist function.

Parking Assist Switch Indicator

When the parking assist system is enabled, the parking assist control module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the body control module (BCM) and is controlled through a low control circuit by the parking assist control module.

Infotainment System

The infotainment system controls the audible alert for the park assist alert. If the an object is detected the infotainment system will command beeps as an audible alert to the driver.

Parking Assist Operation

When an object is within the measuring range of the sensor, the ultrasonic pulse is reflected and is received by the sending or a neighboring sensor. The sensor converts this signal into a voltage signal and sends this signal to the parking assist control module. The parking assist control module evaluates the received sensor signals. As soon as an object is within the measuring range, the parking assist control module sends a message via serial data to the infotainment system to provide an alert signal.

The parking assist system can detect objects greater than 7.6 cm (3 in) wide and 25.4 cm (10 in) tall. The system cannot detect objects below the bumper or underneath the vehicle.

The parking assist system can be activated and deactivated by pressing the parking assist switch. When the transmission is in R, park assist is automatically activated, unless disable by the switch.

The parking assist control module carries out a self test and monitors the sensors for electrical and mechanical faults. Monitored is the power supply of each sensor and the sensor signals. Mud, ice and snow may cause obstruction of the function of the sensors. The parking assist control module also determines if the correct type of sensor is installed. If any of these tests fails, a DTC with corresponding symptom is set and the parking assist system is deactivated.

Parking Assist System Driver Information Center Messages

SERVICE PARK ASSIST

The driver information center displays SERVICE PARK ASSIST when the parking assist control module detects a malfunction in the parking assist system and the system is disabled. The driver information center also displays SERVICE PARK ASSIST when a loss of communication occurs with the parking assist control module.

PARK ASSIST OFF

The PARK ASSIST OFF message is displayed in the driver information center when the parking assist system is disabled due to conditions that disable or inhibit the system. The parking assist control module requests the driver information center display PARK ASSIST OFF when it detects that one of the following conditions:

- The parking assist system is manually disabled using the parking assist switch.
- An object is attached to the rear of the vehicle, such as a trailer, bicycle rack, trailer hitch receiver, or tow bar. Also, an object extending beyond a lowered tailgate will disable the system.
- The object sensors are covered by snow, mud, dirt, slush, or ice.
- The rear fascia is damaged.
- Excessive paint thickness on a replacement parking assist sensor.
- The object sensors are disrupted by vibrations, like those caused by a large nearby vehicle or from heavy equipment such as a jackhammer.

Parking Assist Description and Operation (with UD5)

The parking assist system is designed to identify and notify the driver of an object in the vehicle path when moving forward or reversing at speeds of less than 8 km/h (5 MPH). The distance and location of the object is determined by four object sensor located in the rear fascia and four object sensors located in the front fascia. The parking assist system will notify the driver using audible beeps through the infotainment system or haptic pulses through the driver's seat (if equipped).

The parking assist system is made up of the following components:

- Front and rear parking assist control module
- Front object sensors
- Rear object sensors
- Parking assist switch
- Parking assist indicator
- Infotainment system
- Safety alert seat, if equipped.

Front and Rear Parking Assist Control Module

The front and rear parking assist control module provides a reference voltage and a low reference to the eight object alarm sensors. The front and rear parking assist control module receives individual signals from each of the eight sensors and determines the location and distance of an object based on these inputs. When an object is detected, the front and rear parking assist control module will send a serial data message to the infotainment system requesting an audible alert.

Object Sensors

The object sensors are located in the front and rear fascias of the vehicle. The sensors are used to determine the distance between an object and the bumper. Each sensor emits an ultrasonic frequency which is reflected off any object located in front of or behind the vehicle. These reflections are received by the sensors. The time difference between the emission of the frequency and when the reflection is received is known as sensor echo time, it is used to determine the distance to the object. The sensors report this information to the front and rear parking assist control module.

Parking Assist Switch (All except Cadillac with UGN)

The parking assist system can be activated and deactivated by pressing the parking assist switch. The front and rear parking assist control module applies voltage and monitors the parking assist switch signal circuit. The parking assist switch is a normally open switch. With the switch open, voltage seen at the front and rear parking assist control module is high. When the parking assist switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the front and rear parking assist control module is low. The front and rear parking assist control module will respond to this by activating or deactivating the parking assist function.

Parking Assist Switch (Cadillac with UGN)

The parking assist system can be activated and deactivated by pressing the parking assist switch. The active safety control module applies voltage and monitors the parking assist switch signal circuit. The parking assist switch is a normally open switch. With the switch open, voltage seen at the active safety control module is high. When the parking assist switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the active safety control module is low. The active safety control module will respond to this by sending a serial data message to the front and rear parking assist control module requesting the activation or deactivation of the parking assist system.

Parking Assist Indicator (All except Cadillac with UGN)

When the parking assist system is enabled, the front and rear parking assist control module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the body control module (BCM) and is controlled through a low control circuit by the front and rear parking assist control module.

Parking Assist Indicator (Cadillac with UGN)

When the parking assist system is enabled, the active safety control module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the body control module (BCM) and is controlled through a low control circuit by the active safety control module.

Infotainment System

The infotainment system controls the audible alert for the park assist alert. If the an object is detected the infotainment system will command beeps as an audible alert to the driver.

Safety Alert Seat

The memory seat module controls the haptic alert provided by the seats. If an object is detected, the memory seat module will command pulses to the driver's seat.

Parking Assist Operation

When an object is within the measuring range of the sensor, the ultrasonic pulse is reflected and is received by the sending or a neighboring sensor. The sensor converts this signal into a voltage signal and sends this signal to the front and rear parking assist control module. The front and rear parking assist control module evaluates the received sensor signals. As soon as an object is within the measuring range, the front and rear parking assist control module sends a message via serial data to the infotainment system to provide an alert signal.

The parking assist system can detect objects greater than 7.6 cm (3 in) wide and 25.4 cm (10 in) tall. The system cannot detect objects below the bumper or underneath the vehicle.

The parking assist system can be activated and deactivated by pressing the parking assist switch. When the transmission is in R, park assist is automatically activated, unless disable by the switch.

The front and rear parking assist control module carries out a self test and monitors the sensors for electrical and mechanical faults. Monitored is the power supply of each sensor and the sensor signals. Mud, ice and snow may cause obstruction of the function of the sensors. The front and rear parking assist control module also determines if the correct type of sensor is installed. If any of these tests fails, a DTC with corresponding symptom is set and the parking assist system is deactivated.

Parking Assist System Driver Information Center Messages

SERVICE PARK ASSIST

The driver information center displays SERVICE PARK ASSIST when the front and rear parking assist control module detects a malfunction in the parking assist system and the system is disabled. The driver information center also displays SERVICE PARK ASSIST when a loss of communication occurs with the front and rear parking assist control module.

PARK ASSIST OFF

The PARK ASSIST OFF message is displayed in the driver information center when the parking assist system is disabled due to conditions that disable or inhibit the system. The front and rear parking assist control module requests the driver information center display PARK ASSIST OFF when it detects that one of the following conditions:

- The parking assist system is manually disabled using the parking assist switch.
- An object is attached to the rear of the vehicle, such as a trailer, bicycle rack, trailer hitch receiver, or tow bar. Also, an object extending beyond a lowered tailgate will disable the system.
- The parking assist sensors are covered by snow, mud, dirt, slush, or ice.
- The vehicle bumper is damaged.
- Excessive paint thickness on a replacement parking assist sensor.
- The parking assist sensors are disrupted by vibrations, like those caused by a large nearby vehicle or from heavy equipment such as a jackhammer.

Lane Departure Warning Description and Operation (except Cadillac with UGN)

The lane departure warning system is a convenience feature that utilizes the frontview camera module to determine if the vehicle has unintentionally crossed a lane marking and issue a warning. The frontview camera module is located behind the windshield, looking out at the road ahead and detecting any lane markings. When the vehicle unintentionally leaves a detected lane, visual and audible or haptic (if equipped) alerts are given to the driver. The visual alert cannot be changed, but the driver can select between audible or haptic alerts (if equipped)vin the vehicle personalization menus. Refer to the vehicle owner's manual for vehicle personalization options.

The lane departure warning system utilizes the following components:

- Frontview camera module
- Lane departure warning switch
- Instrument cluster
- Infotainment system
- Safety alert seat, if equipped

Frontview Camera Module

The frontview camera module detects visual queues such as lane markings. When it is determined that the vehicle has unintentionally moved outside of the lane, visual and audible or haptic (if equipped) warning is given to the driver. The frontview camera module receives an input from the lane departure warning switch and controls the lane departure warning switch indicator output. The frontview camera module also communicates via serial data with the instrument cluster, infotainment system, and memory seat module to request visual, audible, and/or haptic alerts.

Lane Departure Warning Switch

The lane departure warning switch provides an input to the frontview camera module to turn the lane departure warning system on and off. The frontview camera module applies voltage and monitors the parking assist switch signal circuit. The lane departure warning switch is a normally open switch. With the switch open, voltage seen at the frontview camera module is high. When the lane departure warning switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the frontview camera module is low. The frontview camera module will respond to this by activating or deactivating the lane departure warning system.

The lane departure warning switch also utilizes the lane departure warning indicator, which is part of the lane departure warning switch and is controlled by the frontview camera module to indicate the operational status of the lane departure warning system. When the lane departure warning is enabled, the frontview camera module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the body control module (BCM) and is controlled through a low control circuit by the frontview camera module.

Instrument Cluster

The instrument cluster contains green and amber lane departure warning indicators. These indicators inform the driver of the current status of the lane departure warning system and are controlled via serial data by the frontview camera module. When the vehicle speed is above 56 km/h (35 MPH) and the system has detected the required lane markings and is ready to assist, the green indicator will be illuminated. If the vehicle has unintentionally left the lane, the amber indicator will flash.

Infotainment System

The infotainment system controls the audible alert for the lane departure warning. If the vehicle has unintentionally left the lane, the frontview camera module will request via serial data an audible alert to the driver through the infotainment system

Safety Alert Seat

The memory seat module controls the haptic alert provided by the seats. If the vehicle has unintentionally left the lane, the memory seat module will command pulses to the left or right side of the seat, depending on the lane departure direction.

Lane Departure Warning Operation

System Operational Modes

- Off State: The system has been turned off by the driver using the lane departure warning switch. The lane departure warning indicator located on the lane departure warning switch will not be illuminated.
- Not Ready To Assist: The system is enabled and the lane departure warning indicator located on the lane departure warning switch is illuminated, but the system is not ready to assist because one of the following conditions is true:
  - Vehicle speed is less than 56 km/h (35 MPH). The system is designed to function at speeds greater than 56 km/h (35 MPH).
  - The system cannot detect lane markings. This may be because there are no lane markings or the lane markings cannot be determined due to snow, rain, or other driving conditions.
  - The windshield area in front of the camera or the camera lens is blocked by fog, dirt, damage to the windshield, or other elements that may prevent the camera from detecting lane markings.
- Ready To Assist: The system is enabled and ready to warn of the unintentional lane crossing. The system is ready to assist when the green lane departure warning indicator is illuminated on the instrument cluster.

Lane Crossing Alerts

- A lane crossing alert consists of the following:
  - The amber lane departure warning indicator located on instrument cluster will flash.
  - Three chimes are activated through the infotainment system or three pulses to the left or right side of the seat, if equipped with safety alert seat
- When any of the following conditions occurs, the system will not give alerts:
  - The appropriate turn signal is activated. An activated turn signal is interpreted as an intentional lane crossing.
  - The operator makes an intentional steering maneuver.
  - The operator makes an intentional accelerating maneuver.
  - The operator makes an intentional braking maneuver.

Lane Departure Warning Description and Operation (Cadillac with UGN)

The lane departure warning system is a convenience feature that utilizes the frontview camera module and active safety control module to determine if the vehicle has unintentionally crossed a lane marking and issue a warning. The frontview camera module is located behind the windshield, looking out at the road ahead and detecting any lane markings. When the vehicle unintentionally leaves a detected lane, visual and audible or haptic alerts are given to the driver. The visual alert cannot be changed, but the driver can select between audible or haptic alerts in the vehicle personalization menus. Refer to the vehicle owner's manual for vehicle personalization options.

The lane departure warning system utilizes the following components:

- Active safety control module
- Frontview camera module
- Lane departure warning switch
- Instrument cluster
- Infotainment system
- Safety alert seat

Active Safety Control Module

The active safety control module communicates with the frontview camera module via serial data and acts as the image processor, monitoring lane markings and making the determination if a lane departure warning is warrented. The active safety control module receives image data from the frontview camera module and detects visual queues such as lane markings. When it is determined that the vehicle has unintentionally moved outside of the lane, visual and audible or haptic warning is given to the driver. The active safety control module receives an input from the lane departure warning switch and controls the lane departure warning switch indicator output. The active safety control module also communicates via serial data with the instrument cluster, infotainment system, and memory seat module to request visual and audible or haptic alerts.

Frontview Camera Module

The frontview camera module is located behind the windshield, looking out at the road ahead and collects image data for the active safety control module. The frontview camera module communicates via serial data with the active safety control module.

Lane Departure Warning Switch

The lane departure warning switch provides an input to the active safety control module to turn the lane departure warning system on and off. The active safety control module applies voltage and monitors the parking assist switch signal circuit. The lane departure warning switch is a normally open switch. With the switch open, voltage seen at the active safety control module is high. When the lane departure warning switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the active safety control module is low. The active safety control module will respond to this by activating or deactivating the lane departure warning system.

The lane departure warning switch also utilizes the lane departure warning indicator, which is part of the lane departure warning switch and is controlled by the active safety control module to indicate the operational status of the lane departure warning system. When the lane departure warning is enabled, the active safety control module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the body control module (BCM) and is controlled through a low control circuit by the active safety control module.

Instrument Cluster

The instrument cluster contains green and amber lane departure warning indicators. These indicators inform the driver of the current status of the lane departure warning system and are controlled via serial data by the active safety control module. When the vehicle speed is above 56 km/h (35 MPH) and the system has detected the required lane markings and is ready to assist, the green indicator will be illuminated. If the vehicle has unintentionally left the lane, the amber indicator will flash.

Infotainment System

The infotainment system controls the audible alert for the lane departure warning. If the vehicle has unintentionally left the lane, the active safety control module will request via serial data an audible alert to the driver through the infotainment system

Safety Alert Seat

The memory seat module controls the haptic alert provided by the seats. If the vehicle has unintentionally left the lane, the memory seat module will command pulses to the left or right side of the seat, depending on the lane departure direction.

Lane Departure Warning Operation

System Operational Modes

- Off State: The system has been turned off by the driver using the lane departure warning switch. The lane departure warning indicator located on the lane departure warning switch will not be illuminated.
- Not Ready To Assist: The system is enabled and the lane departure warning indicator located on the lane departure warning switch is illuminated, but the system is not ready to assist because one of the following conditions is true:
  - Vehicle speed is less than 56 km/h (35 MPH). The system is designed to function at speeds greater than 56 km/h (35 MPH).
  - The system cannot detect lane markings. This may be because there are no lane markings or the lane markings cannot be determined due to snow, rain, or other driving conditions.
  - The windshield area in front of the camera or the camera lens is blocked by fog, dirt, damage to the windshield, or other elements that may prevent the camera from detecting lane markings.
- Ready To Assist: The system is enabled and ready to warn of the unintentional lane crossing. The system is ready to assist when the green lane departure warning indicator is illuminated on the instrument cluster.

Lane Crossing Alerts

- A lane crossing alert consists of the following:
  - The amber lane departure warning indicator located on instrument cluster will flash.
  - Three chimes are activated through the infotainment system or three pulses to the left or right side of the seat, if equipped with safety alert seat
- When any of the following conditions occurs, the system will not give alerts:

- The appropriate turn signal is activated. An activated turn signal is interpreted as an intentional lane crossing.
- The operator makes an intentional steering maneuver.
- The operator makes an intentional accelerating maneuver.
- The operator makes an intentional braking maneuver.

Side Blind Zone Alert Description and Operation

The side blind zone alert system is a lane-changing aid that assists drivers with avoiding crashes that occur with vehicles in the side blind zone (or spot) areas. When the vehicle is moving forward, the left or right side mirror display will illuminate if a vehicle is detected in the blind zone. If the turn signal is activated and a vehicle is also detected on the same side, the display will flash as an extra warning not to change lanes. The side blind zone alert monitors the blind sport area along side the vehicle, approximately 3.5 m (11 ft) from the side of the vehicle, extending 5 m (16 ft) behind the mid-point of the vehicle.

The lane change alert system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with vehicles rapidly approaching the side blind zone (or spot) areas from behind. The lane change alert warning display will illuminate in the corresponding outside rearview mirror and will flash as an extra warning not to change lanes if the turn signal is on. The lane change alert system monitors the lane area along side the vehicle, approximately 3.5 m (11 ft) from the side of the vehicle, extending up 70 m (230 ft) beyond the rear bumper.

While in reverse, the rear cross traffic alert system displays a triangle with a left or right pointing arrow on the info display module to warn of traffic coming from the left or right. This system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, either three beeps sound from the left or right or three safety alert seat pulses occur on the left or right side, depending on the direction of the detected vehicle.

Side Blind Zone Alert System Components

The side blind zone alert system is made up of the following components:

- Side object sensor module – left
- Side object sensor module – right
- Driver outside rearview mirror
- Passenger outside rearview mirror
- Infotainment system
- Safety alert seat

Side Object Sensor Module

The side object sensor modules are located on each side of the vehicle behind the rear fascia and are not directly visible from outside the vehicle. The sensors use radar to determine the presence of objects nearby. The side object sensor module – left is the master that communicates on vehicle serial data bus. There is a private serial data bus between the left and right sensors. The scan tool is able to communicate only with the left sensor. The sensors are unique and not interchangeable from side to side.

The side object sensor module – right controls both side blind zone indicators located on the left and right outside rearview mirrors. Each indicators receives ground at all times. When an object has been detected in the vehicle's blind spot or a vehicle is fast approaching from the rear, the side object sensor module – right will apply voltage to the appropriate indicator, illuminating it. If the turn signal is on, indicating the driver intends to change lanes, side object sensor module – right will flash the appropriate indicator as an additional means of alert.

Outside Rearview Mirrors

The outside rearview mirrors contain an icon that is backlit with high intensity, amber-colored LED's located on the mirror surface. The display brightness adapts to day and night conditions. The side object sensor module – right controls both side blind zone indicators.

Infotainment System

The infotainment system controls the audible alerts for the rear cross traffic alert system. If cross traffic is present, the side object sensor module – left will command the infotainment system issue an audible alert to the driver. The audible alert will sound from the side of the vehicle where traffic is approaching from.

The infotainment system also includes the info display module. When in R, any cross traffic warnings will be overlaid over the rear vision camera image on the info display module.

Safety Alert Seat

The memory seat module controls the haptic alert provided by the seats. If cross traffic is present, the side object sensor module – left will command the safety alert seat issue a haptic alert to the driver on the side of the seat where traffic is approaching from.

Side Blind Zone Alert Operation

When the vehicle is started, both side blind zone indicators located on the left and right outside rearview mirrors will briefly illuminate to indicate that the system is operating. The system is designed to detect objects in an area approximately between 0.5 m (1.5 ft) and 2 m (6 ft) off the ground. The side blind zone alert monitors the blind sport area along side the vehicle, approximately 3.5 m (11 ft) from the side of the vehicle, extending 5 m (16 ft) behind the mid-point of the vehicle. The side blind zone alert system does not detect stationary objects such as guardrails, posts, curbs, walls, berms, bridges, or parked vehicles.

When the system detects a vehicle in the side blind zone while driving forward, an amber warning symbol will illuminate on the appropriate outside mirror. This indicates that it may be unsafe to change lanes. If the driver activates the turn signal, the amber warning symbol starts flashing as an extra warning not to change lanes.

Foul weather may affect the operation of the side blind zone system. Occasional missed alerts can occur under normal circumstances and will increase in wet conditions. The number of missed alerts will increase with increased rainfall or road spray. Heavy rainfall, as well as mud, dirt, snow, ice, or slush build-up on the rear fascia, can completely disable the system.

If the vehicle is towing a trailer or has an object such as a bicycle rack attached to the rear of the vehicle, the side blind zone system may not function properly and the indicators may illuminate intermittently or remain illuminated all the time.

Lane Change Alert Operation

The lane change alert system shall detect and report objects in the driver's blind zone, or approaching on either side of the vehicle, within a specified lane change zone. The system is designed to alert the driver, with a visual display placed on the side view mirror, to the presence of objects of interest that may not be visible in the inside rearview mirror and outside rear view mirrors. Although this system is intended to help drivers avoid lane change crashes, it does not replace driver vision and therefore should be considered a lane change aid. Even with the lane change alert system, the driver must check carefully for objects outside of the reporting zone before changing lanes. In the event that the system senses a malfunction through its diagnostic routines, the system will be disabled and the driver will be visually notified.

When the vehicle is started, both outside mirror displays will briefly come on to indicate that the system is operating. The warning symbols will vary brightness based on the ambient light conditions. Lane change alert is active when the vehicle is out of park or the parking brake is off on manual transmission vehicles. When the system detects a vehicle in the side blind zone or approaching in the lane change alert zone while driving forward, an amber warning symbol will light up in the appropriate outside mirror. This indicates that it may be unsafe to change lanes. If the driver then activates the turn signal, the amber warning symbol starts flashing as an extra warning not to change lanes.

The system is designed to detect objects of interest as small as a 125cc motorcycle with rider. The detection zone starts at the outside rearview mirror and extends out to 3.5 m (11 ft) at the back corner of the vehicle and 70 m

(230 ft) behind the vehicle at a height between 0.5 m (1.5 ft) and 2.0 m (6 ft) above the ground. The side blind zone system does not detect stationary objects such as guardrails, posts, curbs, walls, berms, bridges, or parked vehicles.

If the vehicle is towing a trailer or has an object such as a bicycle rack attached to the rear of the vehicle, the lane change alert system may not function properly and the indicators may illuminate intermittently or remain illuminated all the time. The driver information center may display “SIDE DETECTION SYSTEM UNAVAILABLE”.

Foul weather may affect the operation of the lane change alert system. Occasional missed alerts can occur under normal circumstances and will increase in wet conditions. The number of missed alerts will increase with increased rainfall or road spray. Heavy rainfall, as well as mud, dirt, snow, ice, or slush build-up on the rear fascia, can completely disable the system. The warning symbols will vary brightness based on the ambient light conditions.

Rear Cross Traffic Alert Operation

The rear cross traffic alert system is designed to detect moving objects approaching the side of the vehicle while backing up. The detection zone extends approximately 30 m (99 ft) from the rear corner of the car and covers an area from behind the vehicle to 125 degrees towards the front at a height of 0.45 m (1.5 ft) to 2 m (6.5 ft) above ground. The system operates when vehicle speed is 10 km/h (6 mph) or less and is designed to detect objects moving at speeds up to 36 km/h (22 mph).

When the vehicle is backing up, the side object sensors receive energy that is reflected from external objects and determine if the objects are objects of interest or not. The system may at times detect pedestrians, shopping carts, or similar moving objects. This is normal and should not be considered as a false alert or problem with the system. The rear cross traffic alert system will estimate vehicle travel trajectory and use the information in conjunction with object travel trajectory information to determine if there is a potential collision between the vehicle and the object of interest. The rear cross traffic alert function will only alert on objects that pose a potential collision with the host vehicle. The system is not designed to provide an alert to objects that have no potential collision with vehicle. In addition, the system will not alert to stationary objects such as signs, parked cars, etc.

If the vehicle is towing a trailer or has an object such as a bicycle rack attached to the rear of the vehicle, the rear cross traffic alert system may not function properly.

Foul weather may affect the operation of the rear cross traffic alert system. Occasional missed alerts can occur under normal circumstances and will increase in wet conditions. The number of missed alerts will increase with increased rainfall or road spray. Heavy rainfall, as well as mud, dirt, snow, ice, or slush build-up on the rear fascia, can completely disable the system.

Side Blind Zone Alert Driver Information Center Messages

SIDE BLIND ZONE ALERT OFF

This message indicates that the system has been disabled through the driver information center. Refer to the vehicle owners manual for instructions on how to set personalization options on the driver information center.

LANE CHANGE ALERT OFF

This message indicates that the system has been disabled through the driver information center. Refer to the vehicle owners manual for instructions on how to set personalization options on the driver information center.

REAR CROSS TRAFFIC ALERT OFF

This message indicates that the system has been disabled through the driver information center. Refer to the vehicle owners manual for instructions on how to set personalization options on the driver information center.

SERVICE SIDE DETECTION SYSTEM

This message indicates that the system requires service. When the message is displayed, the indicators will remain illuminated at all times, notifying the driver that the side blind zone and lane change alert should not be relied upon when changing lanes and the rear cross traffic alert will also be inoperative

SIDE DETECTION SYSTEM UNAVAILABLE

This message indicates that the system has been temporarily disabled because the sensor is blocked or can otherwise not accurately detect vehicles or objects. Such instances may be mud, dirt, snow, ice, or slush build-up on the rear fascia, heavy rainfall, excessive road spray, fascia damage or stickers.

The rear cross traffic alert system will read the GPS latitude and longitude on the serial data bus and calculate if the vehicle is within a Radio Astronomy zone. These zones are located in Europe and Japan and require the sensors to be turned off. The “Side Detection System Unavailable” message will be displayed to the driver when this occurs.

Forward Collision Alert Description and Operation (without UGN)

The forward collision alert system is a convenience feature of the frontview camera module that issues a warning to the driver when a potential collision risk exists. The frontview camera module is located behind the windshield, looking out at the road ahead and detecting vehicles directly ahead. When the system detects a vehicle in the path ahead, the green vehicle ahead indicator is illuminated on the instrument cluster. When approaching another vehicle too rapidly, the collision alert symbol will flash in the head-up display (if equipped) or a series of red collision alert indicators will flash. An audible alert sound will simultaneously sound or the safety alert seat will provide haptic feedback. The visual alert cannot be changed, but the driver can select between audible or haptic alerts in the vehicle personalization menus. The forward collision alert system can also be turned on or off through the vehicle personalization menus. See the vehicle owner manual for more detailed information on vehicle personalization.

Forward collision alert does not provide a warning to help avoid a crash, unless it detects a vehicle. Forward collision alert may not detect a vehicle ahead if the frontview camera module is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and frontview camera module clean and in good repair.

Forward collision alert may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

The forward collision alert system is made up of the following components:

- Frontview camera module
- Forward collision alert switch
- Instrument cluster
- Collision alert indicators (without UV6)
- Head-up display (with UV6)
- Infotainment system
- Safety alert seat, if equipped

Frontview Camera Module

The frontview camera module detects vehicles in front of the vehicle. The frontview camera module communicates with the instrument cluster via serial data to illuminate the appropriate amber or green vehicle ahead indicator, collision alert symbol will flash in the head-up display, or collision alert indicators. The frontview camera module also communicates via serial data with the infotainment system and memory seat module to request audible or haptic alerts.

Forward Collision Alert Switch

The forward collision alert switch provides an input to the frontview camera module to select the alert timing sensitivity when approaching another vehicle too rapidly. The forward collision alert switch is part of the steering wheel controls switch – left and provides inputs to the body control module (BCM), which then communicates with the frontview camera module via serial data.

The BCM applies a reference voltage and monitors a low signal voltage from the normally open switch. When the switch is pressed, the signal circuit is pulled low through a specific series of resistors, indicating that the system has been requested to change the alert timing sensitivity. The first button press will show the current alert timing setting on the driver information center. With every subsequent button press, the alert timing sensitivity is changed.

Instrument Cluster

The instrument cluster communicates via serial data with the frontview camera module and will illuminate the amber or green vehicle ahead indicator as requested by the frontview camera module. The instrument cluster also controls the head-up display or the collision alert indicators.

Collision Alert Indicators (without UV6)

The collision alert indicators are a series of red LEDs that will flash when approaching another vehicle too rapidly. The collision alert indicators are located in the upper instrument panel area and reflect off the windshield when illuminated.

The collision alert indicators receive power and ground and are discretely controlled by the instrument cluster through a pair of low control circuits. When requested by the frontview camera module, the instrument panel will pulse the low control circuits, flashing the LEDs as a visual alert that another vehicle is being approached too rapidly.

Head-up Display (with UV6)

The instrument cluster controls the head-up display via serial data. The instrument cluster will command the head-up display to flash the collision alert indicator as a visual alert when approaching another vehicle too rapidly as requested by the frontview camera module.

Infotainment System

The infotainment system controls the audible alerts for the forward collision alert system. If the host vehicle is approaching another vehicle too rapidly, the frontview camera module will command the infotainment system issue an audible alert to the driver.

Safety Alert Seat

The memory seat module controls the haptic alert provided by the seats. If the vehicle is approaching another vehicle too quickly, the frontview camera module will command the memory seat module to pulse both sides of the seat.

Forward Collision Alert Description and Operation (with UGN)

On vehicles equipped with RPO UGN, forward collision alert is tightly integrated with the active safety system. Refer to Active Safety System Description and Operation (Chevrolet, GMC with UGN)Active Safety System Description and Operation (Cadillac with UGN).

Active Safety System Description and Operation (Chevrolet, GMC with UGN)

Forward Collision Alert

The forward collision alert system is a convenience feature of the frontview camera module that issues a warning to the driver when a potential collision risk exists. The frontview camera module is located behind the windshield, looking out at the road ahead and detecting vehicles directly ahead. When the system detects a vehicle in the path ahead, the green vehicle ahead indicator is illuminated on the instrument cluster. When approaching another vehicle too rapidly, the collision alert symbol will flash in the head-up display (if equipped) or a series of red collision alert indicators will flash. An audible alert sound will simultaneously sound or the safety alert seat will provide haptic feedback. The visual alert cannot be changed, but the driver can select between audible or haptic alerts in the vehicle personalization menus. The forward collision alert system can also be turned on or off through the vehicle personalization menus. See the vehicle owner manual for more detailed information on vehicle personalization.

Forward collision alert does not provide a warning to help avoid a crash, unless it detects a vehicle. Forward collision alert may not detect a vehicle ahead if the frontview camera module is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and frontview camera module clean and in good repair.

Forward collision alert may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

The forward collision alert system is made up of the following components:

- Frontview camera module
- Forward collision alert switch
- Instrument cluster
- Collision alert indicators (without UV6)
- Head-up display (with UV6)
- Infotainment system
- Safety alert seat, if equipped

Active Emergency Braking System

The active emergency braking systems includes the intelligent brake assist system and the automatic collision preparation system. The intelligent brake assist and the automatic collision preparation systems are designed provide a boost to braking or automatically brake the vehicle to help avoid or lessen the severity of crashes when driving in a forward gear.

Intelligent brake assist is designed to pre-fill the brake hydraulic system to reduce system response time and increase pressure when quickly applying the brakes. Using the frontview camera module and the distance sensing cruise control module, the system monitors the approach speed and distance to a vehicle ahead. If the Intelligent brake assist system determines a collision risk exists, it will begin preparations to the brake hydraulic system. When active, minor brake pedal pulsations or pedal movement may occur and this should be considered normal. Intelligent brake assist will resort to normal braking operation after an intelligent brake assist even has occurred when the brake pedal is released.

When driving in a forward gear at speeds 9 kph (5 mph), the automatic collision preparation system uses the frontview camera module and distance sensing cruise control module to determine if an imminent collision risk exists. If the brakes have not been applied, the system will automatically apply the brakes in an effort to mitigate the collision or reduce collision damage. The system has a detection range of approximately 60 m (197 ft) and will only function when a vehicle is detected, as indicated by the green vehicle ahead indicator is illuminated on the instrument cluster.

Automatic collision preparation is not a substitute for normal vehicle braking and should not be relied on to brake the vehicle. Automatic collision preparation may not detect a vehicle ahead if the frontview camera module or distance sensing cruise control module is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, distance sensing cruise control module, and frontview camera module clean and in good repair.

The active emergency braking system are made up of the following components:

- Frontview camera module
- Distance sensing cruise control module
- Electronic brake control module

Frontview Camera Module

The frontview camera module detects vehicles in front of the vehicle. The frontview camera module communicates with the instrument cluster via serial data to illuminate the appropriate amber or green vehicle ahead indicator, collision alert symbol will flash in the head-up display, or collision alert indicators. The frontview camera module also communicates via serial data with the infotainment system and memory seat module to request audible or haptic alerts.

The frontview camera module works in conjunction with the distance sensing cruise control module to track vehicles ahead and determine if a collision risk exists. If a collision risk exists, the active emergency braking systems will be activated to reduce collision damage.

Distance Sensing Cruise Control Module

The distance sensing cruise control module works in conjunction with the frontview camera module to track vehicles ahead and determine if a collision risk exists. If a collision risk exists, the active emergency braking systems will be activated to reduce collision damage.

Electronic Brake Control Module

The electronic brake control module is used by the active emergency braking system to pre-fill and prepare for braking by the intelligent brake assist and actively brake the vehicle by the automatic collision preparation system.

Forward Collision Alert Switch

The forward collision alert switch provides an input to the frontview camera module to select the alert timing sensitivity when approaching another vehicle too rapidly. The forward collision alert switch is part of the steering wheel controls switch – left and provides inputs to the body control module (BCM), which then communicates with the frontview camera module via serial data.

The BCM applies a reference voltage and monitors a low signal voltage from the normally open switch. When the switch is pressed, the signal circuit is pulled low through a specific series of resistors, indicating that the system has been requested to change the alert timing sensitivity. The first button press will show the current alert timing setting on the driver information center. With every subsequent button press, the alert timing sensitivity is changed.

Instrument Cluster

The instrument cluster communicates via serial data with the frontview camera module and will illuminate the amber or green vehicle ahead indicator as requested by the frontview camera module. The instrument cluster also controls the head-up display or the collision alert indicators.

Collision Alert Indicators (without UV6)

The collision alert indicators are a series of red LEDs that will flash when approaching another vehicle too rapidly. The collision alert indicators are located in the upper instrument panel area and reflect off the windshield when illuminated.

The collision alert indicators receive power and ground and are discretely controlled by the instrument cluster through a pair of low control circuits. When requested by the frontview camera module, the instrument panel will pulse the low control circuits, flashing the LEDs as a visual alert that another vehicle is being approached too rapidly.

Head-up Display (with UV6)

The instrument cluster controls the head-up display via serial data. The instrument cluster will command the head-up display to flash the collision alert indicator as a visual alert when approaching another vehicle too rapidly as requested by the frontview camera module.

Infotainment System

The infotainment system controls the audible alerts for the forward collision alert system. If the host vehicle is approaching another vehicle too rapidly, the frontview camera module will command the infotainment system issue an audible alert to the driver.

Safety Alert Seat

The memory seat module controls the haptic alert provided by the seats. If the vehicle is approaching another vehicle too quickly, the frontview camera module will command the memory seat module to pulse both sides of the seat.

Active Safety System Description and Operation (Cadillac with UGN)

The active safety system is a comprehensive feature set designed to help a driver avoid collisions or reduce crash damage while driving, backing, and parking. The active safety control module is the primary controller for the active safety system. The active safety control module communicates on multiple serial data busses to share information with various control modules throughout the vehicle. The active safety control module uses various sensors and control modules to monitor the vehicle surroundings and take deliberate action to avoid collisions or reduce crash damage. The active safety system tightly integrates the forward collision alert, adaptive cruise control, front and rear parking assist, and active emergency braking systems into a single cohesive system.

The active safety control module communicates via serial data on the object detection bus with the vehicle direction camera, radar sensor module – long range, radar sensor module – short range left front, and radar sensor module – short range right front to create a virtual fusion image of the area in front of the vehicle. The active safety control module observes an actual visual image of the area directly ahead of the vehicle, within 60 m (197 ft), with the vehicle direction camera. The radar sensor module – long range is used to measure the distance to objects that are up to 200 m (656 ft) in front the vehicle and the two radar sensor modules – short range are used to measure the distance to objects that are within 30 m (98 ft) of the front of the vehicle. Within 60 m (197 ft) of the vehicle, all of these inputs are combined to create a fusion image of the area in front of the vehicle. At up to 200 m (656 ft), the radar sensor module – long range will detect and begin tracking objects immediately in front of the vehicle. Within 60 m (197 ft), the vehicle direction camera will confirm objects that have been detected by the radar sensor module – long range. The two radar sensor modules – short range improve cut-in detection, which are objects that enter the vehicle path from the side and are not necessarily detected by the vehicle direction camera and radar sensor module – long range, who's focus are those object directly in front of the vehicle.

The fusion image created by the active safety control module is used to detect collision risks and take action based on the immediacy of the risk. The a collision risk exists, the active safety control module will alert the driver using the forward collision alert system. This will provide the driver with a visual and audible or haptic alert that a collision risk has been detected. If the driver does not take action to reduce the risk of collision, such as changing lanes or applying the brakes, the intelligent brake assist system will pre-fill the brake hydraulic system to reduce system response time and increase pressure when quickly applying the brakes. If a collision risk is imminent, the active safety control module will enter automatic collision preparation, which will automatically apply the brakes in an effort to mitigate the collision or reduce collision damage.

The active safety control module communicates with the steering wheel angle sensor and the multi-axis acceleration sensor via serial data on the chassis expansion bus. These sensors are used to determine the intended vehicle path. Using the steering data and vehicle acceleration data, the active safety control module will determine where the vehicle will be traveling and focus attention on objects in this path. An example would be a driver quickly changing lanes to avoid a collision. This would mitigate the collision risk in the previous lane and the active safety control module would quickly transition to tracking objects for any collision risk in the new lane based on intended vehicle path. The active safety control module also communicates with the electronic brake control module to instigate the braking functions of intelligent brake assist and automatic collision preparation.

At the rear of the vehicle, the active safety control module uses the radar sensor module – short range left rear, radar sensor module – short range right rear, and the front and rear parking assist control module as part of the backing warning system and the rear automatic braking system. Typical rear parking assist utilizes the front and rear parking assist control module and the four ultrasonic rear parking assist sensors to detect object when reversing at speed of up to 8 km/h (5 mph). The backing warning systems utilizes both the four ultrasonic rear parking assist sensors, as well as the radar sensor module – short range left rear and radar sensor module – short range right to detect object at speeds above 8 km/h (5 mph). The rear automatic braking system is intended to help avoid or reduce the harm caused by backing crashes or prevent the vehicle from being from being reversed into an object if the vehicle is already stopped.

The active safety system analyzes data from the various control modules and sensors listed below:

- Active safety control module
- Vehicle direction camera
- Radar sensor module – long range
- Radar sensor module – short range left front
- Radar sensor module – short range right front
- Radar sensor module – short range left rear
- Radar sensor module – short range right rear
- Front and rear parking assist control module
- Electronic brake control module

Component Description

Active Safety Control Module

The active safety control module analyzes data from various modules, sensors, and switches to provide enhanced safety features. In addition to providing alerts, the active safety control module will provide driver assistance through integrated brake assist, automatic collision preparation, rear emergency braking, and adaptive cruise control. Inputs and outputs can either be connected directly to the active safety control module or communicate though serial data. The active safety control module communicates on a dedicated object detection bus, as well as the chassis expansion bus and low speed GMLAN.

Forward collision alert, lane departure warning, and park assist alerts can be user selected to either a haptic signal utilizing the driver's haptic signal motor seat or using beeps through the audio system. This setting can be found in the vehicle personalization menus. See the owner's manual for more detailed information on vehicle personalization.

If there is a DTC set in any of the modules that the active safety control module uses as inputs, it will send a "Service Driver Assist" to the instrument cluster to alert the driver of a problem with the system. No other specific details are given unless the driver attempts to activate a specific system. For example if the driver attempts to turn on lane departure warning, the instrument cluster will display "Lane Departure Unavailable" and the indictor will flash and then go out. A scan tool must be used to read the DTCs that are causing the malfunction to help find the problem. Some of the inputs to the active safety control module can affect forward facing features, rear facing features, or all features. Systems to check to determine which area to focus are rear park assist for rear features, and lane departure warning and adaptive cruise control for front features. If none of the active safety system features are operative, there may be an issue with another module on the vehicle not providing the proper data to the active safety control module. If all active safety control module features are inoperative, check the Adaptive Cruise Control Inhibit History and Disengage History scan tool data for the reason for the malfunction. Definitions of parameters and suggestions on what to look for can be found in CELL Link Error - Link target cell (cell ID 228606) is invalid for this publication.. Any item with a "Yes" was the reason why the adaptive cruise control system was inoperative at that time. In some cases verifying the module is the correct part number, has the latest version of software is necessary, and is calibrated properly.

- Active safety control module inputs:
  - Vehicle direction camera
  - Radar sensor module – long range
  - Radar sensor module – short range left front
  - Radar sensor module – short range right front
  - Radar sensor module – short range left rear
  - Radar sensor module – short range right rear

  - Front and rear parking assist control module
  - Multi-axis acceleration sensor
  - Steering wheel angle sensor
  - Wheel speed sensors
  - Forward collision alert switch
  - Lane departure warning switch
  - Parking assist switch

- Active safety control module outputs:
  - Body control module
  - Electronic brake control module
  - Engine control module
  - Instrument cluster
  - Head-up display
  - Memory seat module (safety alert seats)
  - Lane departure warning switch indicator
  - Parking assist switch indicator
  - Infotainment system

Vehicle Direction Camera

The vehicle direction camera is located behind the windshield, looking out at the road ahead and detects lane markings and objects directly ahead, within a distance of approximately 60 meters (197 ft). The vehicle direction camera is used for lane departure warning and forward collision alert systems. The vehicle direction camera communicates with the active safety control module via serial data on the object detection bus.

Using information from the vehicle direction camera, the active safety control module will provide forward collision alert and lane departure warning to the driver when appropriate. The alerts and warnings can be user-selected to be audible through the audio system or haptic using the active safety seat.

Radar Sensor Module – Long Range

The radar sensor module – long range is located behind the front grille emblem and is used in the 30–200 m (98–656 ft) range. The radar sensor module – long range communicates with the active safety control module via serial data on the object detection bus. In addition to the wiring harness ground, the module is grounded through the mounting bracket.

Radar Sensor Module – Short Range Front

There are two radar sensor module – short range front located behind the front fascia that detect objects up to approximately 30 meters (98 ft). The radar sensor modules – short range front communicate with the active safety control module via serial data on the object detection bus.

Radar Sensor Module – Short Range Rear

There are two radar sensor modules – short range rear located behind the rear fascia that detect objects up to approximately 30 meters (98 ft). The radar sensor modules – short range rear communicate with the active safety control module via serial data on the object detection bus.

Front and Rear Parking Assist Control Module

The front and rear parking assist control module uses ultrasonic object sensors located in the front and rear fascias to provide distance measurements to nearby objects. The front and rear park assist module sends rear object data to the active safety control module via serial data.

Electronic Brake Control Module

The electronic brake control module performs the braking activities of the active safety system. When requested by the active safety control module, the electronic brake control module will prepare or apply the brakes as necessary in response to an imminent collision.

Active Safety System Operation

Forward Collision Alert

The forward collision alert system is a convenience feature of the active safety control module, vehicle direction camera, radar sensor module – long range, radar sensor module – short range left front, and radar sensor module – short range right front that issues a warning to the driver when a potential collision risk exists. When the system detects a vehicle in the path ahead, the green vehicle ahead indicator is illuminated on the instrument cluster. If the vehicle ahead is being followed too closely, the vehicle ahead indicator will be amber. When approaching another vehicle too rapidly, the collision alert symbol will flash in the head-up display. An audible alert sound will simultaneously sound or the safety alert seat will provide haptic feedback. The visual alert cannot be changed, but the driver can select between audible or haptic alerts in the vehicle personalization menus. Refer to the vehicle owner manual for more detailed information on vehicle personalization.

Forward collision alert does not provide a warning to help avoid a crash, unless it detects a vehicle. Forward collision alert may not detect a vehicle ahead if the vehicle direction camera is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and vehicle direction camera area clean and in good repair.

Forward collision alert may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

Intelligent Brake Assist

Intelligent brake assist is designed to pre-fill the brake hydraulic system to reduce system response time and increase pressure when quickly applying the brakes. Using the active safety control module, vehicle direction camera, radar sensor module – long range, radar sensor module – short range left front, and radar sensor module – short range right front, the system monitors the approach speed and distance to a vehicle ahead. If the Intelligent brake assist system determines a collision risk exists, it will begin preparations to the brake hydraulic system. When active, minor brake pedal pulsations or pedal movement may occur and this should be considered normal. Intelligent brake assist will resort to normal braking operation after an intelligent brake assist even has occurred when the brake pedal is released.

Automatic Collision Preparation

Automatic collision preparation system uses the active safety control module, vehicle direction camera, radar sensor module – long range, radar sensor module – short range left front, and radar sensor module – short range right front to determine if an imminent collision risk exists. If the brakes have not been applied, the system will automatically apply the brakes in an effort to mitigate the collision or reduce collision damage. The system has a detection range of approximately 60 m (197 ft) and will only function when a vehicle is detected, as indicated by the green vehicle ahead indicator is illuminated on the instrument cluster.

Automatic collision preparation is not a substitute for normal vehicle braking and should not be relied on to brake the vehicle. Automatic collision preparation may not detect a vehicle ahead if the vehicle direction camera is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and vehicle direction camera area clean and in good repair.

Backing Warning System

The backing warning system utilized the active safety control module, radar sensor module – short range left rear, radar sensor module – short range right rear, and the front and rear parking assist control module to warn of rear objects when backing up at speeds greater than 8 km/h (5 mph). Utilizing the ultrasonic rear object sensors, the front and rear parking assist control module can only detect object at seeps up to 8 km/h (5 mph). By utilizing the active safety control module and radar sensor modules – short range along with the front and rear parking assist control module and the rear object sensors, object can be detected at speeds greater than 8 km/h (5 mph).

While reversing at speeds greater than 8 km/h (5 mph), the backing warning system will alert the driver with an audible alert or through haptic feedback from the safety alert seat when an object is first detected. If the system detects a potential collision risk, a series of audible beeps or haptic feedback pulses will be provided, as well as a quick pulse of the brakes.

Rear Automatic Braking

The rear automatic braking system is designed to help avoid or reduce the harm caused by backing crashes. If the system detects the vehicle is backing too fast to avoid a collision, it may automatically brake hard to a stop.

Utilizing the active safety control module, radar sensor module – short range left rear, radar sensor module – short range right rear, and the front and rear parking assist control module, rear automatic braking attempts to avoid imminent collision by automatically braking the vehicle when traveling in reverse. In conjunction with the backing warning system, if the driver does not respond to the audible and haptic alerts while reversing, the system will automatically brake the vehicle to a stop.

Rear automatic braking also prevents the vehicle from backing into an object if the vehicle is stopped and shifted to R. If the system detects an object immediately behind the vehicle while attempting to reverse from a stop, the brakes will be applied.

Pressing the brake pedal after the vehicle comes to a stop will release the rear automatic braking. It may be necessary to release the electronic parking brake. When it is safe to do so, pressing the accelerator pedal firmly at any time will override the rear automatic braking. If rear automatic braking is active and there is no object behind the vehicle, make sure there is no snow, ice, or debris on the rear object sensors.

Lane Departure Warning

The lane departure warning system is a convenience feature that utilizes the vehicle direction camera and active safety control module to determine if the vehicle has unintentionally crossed a lane marking and issue a warning. The vehicle direction camera is located behind the windshield, looking out at the road ahead and detecting any lane markings. When the vehicle unintentionally leaves a detected lane, visual and audible or haptic alerts are given to the driver. The visual alert cannot be changed, but the driver can select between audible or haptic alerts in the vehicle personalization menus.

Refer to Lane Departure Warning Description and Operation (except Cadillac with UGN)Lane Departure Warning Description and Operation (Cadillac with UGN) for more information about the Lane Departure Warning function.

Adaptive Cruise Control Description and Operation (with KSG)

The adaptive cruise control system is an enhanced cruise control system with the ability to sense and react to forward traffic. Compared to the common cruise control system found on many vehicles, the main functional enhancement of the adaptive cruise control system is the ability to detect the presence of a vehicle in the path of the adaptive cruise control vehicle. Adaptive cruise control retains the existing cruise control feature that controls the vehicle speed to the driver selected speed. However, adaptive cruise control allows a driver to set and maintain a following distance to the preceding nearest vehicle in the path ahead. The active safety control module controller calculates a follow speed limit to ensure an acceptable distance is maintained to the preceding vehicle in front, should one be present. The adaptive cruise control system automatically adjusts the speed when the vehicle comes up behind a slower travelling vehicle in front. The system applies limited automatic braking and throttle control without driver input when necessary to maintain the set following distance. The preceding vehicle's speed and acceleration along with the active cruise control vehicle speed and acceleration and the distance between the two vehicles are factors used by the active safety control module controller to determine the follow speed limit. The vehicle speeds up to the original driver selected set speed when the pathway becomes clear without driver input.

The adaptive cruise control functionality depends on various modules on the vehicle to function and each module performs a function that is critical to the proper operation of the adaptive cruise control system. Adaptive cruise control will not operate if any components fail. Communication between modules is via serial data. The following is a functional description of the active safety control module and the other associated components:

- Active safety control module
- Body control module
- Engine control module
- Electronic brake control module
- Transmission control module
- Instrument cluster
- Cruise control switch
- Gap switch

Active Safety Control Module

The active safety control module analyzes data from various modules, sensors, and switches to provide enhanced safety features. In addition to enhanced safety features, the active safety control module provides the adaptive cruise control system functionality. The active safety control module analyzes data from the long range radar sensor module, front short range radar sensor modules, and frontview camera module to identify and classify objects in the road environment. The system scans the road environment to detect targets within its specified field of view. The active safety control module then sends throttle and/or brake commands to the engine control module (ECM) and electronic brake control module (EBCM) via serial data in order to control the vehicle acceleration/deceleration based on the data from the modules. The ECM and EBCM provide throttle control and automatic braking needed for proper cruise speed adjustment. The following is a list of the active safety control module functions pertaining to the adaptive cruise control functionality:

- The active safety control module processes the road environment to get data concerning any vehicle ahead of the adaptive cruise control vehicle. Detection, parameter estimation, tracking, object classification and diagnostics are the primary functions. When an object is detected, the controller calculates the object range, range rate, acceleration and azimuth angle parameters.
- The active safety control module performs adaptive cruise control state processing automatically – distance control or speed control. The adaptive cruise control operates in 2 possible states – cruise or follow. The normal operating state is cruise, whereby the vehicle speed is controlled to match the driver selected set speed. When a preceding forward target is identified, the adaptive cruise control system will automatically transition into the follow speed state to provide proper lane spacing behind the target vehicle in front. The preceding vehicle's speed and acceleration, with the adaptive cruise control vehicle speed, acceleration and distance between the two vehicles will be used to determine the adaptive cruise control follow speed limit. The adaptive cruise control follow speed limit will ensure that an acceptable distance is maintained to the preceding vehicle.
- The active safety control module determines the follow speed limit for throttle control by the ECM.
- The active safety control module arbitrates the adaptive cruise control system brake and throttle control between the EBCM and the ECM.
- The active safety control module requests brake light activation during automatic braking.
- The active safety control module provides operational feedback to the vehicle driver. The active safety control module sends signals for telltales and messages to be displayed on the instrument cluster or driver information center.

Body Control Module

The following are the adaptive cruise control System functions provided by the body control module (BCM):

- The BCM provides a translating gateway for the high speed GMLAN serial data circuit.
- The BCM reads all cruise control switches and the gap switch. The active safety control module monitors a variety of user operated switches from the BCM switch status information sent via the GMLAN serial data circuit.
- The BCM illuminates the brake light based on a GMLAN message from the active safety control module during automatic braking.
- The BCM measures the brake pedal position and sends brake pedal travel status via GMLAN serial data circuit to the ECM. The ECM disengages the adaptive cruise control system when the brake is applied by the driver pressing the brake pedal.
- The BCM serves as a gateway to the instrument cluster and driver information center. The BCM will generate visual warnings based on high speed GMLAN serial data messages from the active safety control module.

Engine Control Module

The following are the adaptive cruise control system functions performed by the engine control module (ECM):

- The ECM provides the electronic throttle control to the adaptive cruise control System. The ECM is also responsible for determining when a driver is overriding the adaptive cruise control throttle position by pressing the accelerator pedal.
- The ECM processes the cruise control switch requests received via the GMLAN serial data circuit from the BCM. Engaging and disengaging the adaptive cruise control system are functions performed by the ECM.
- The ECM determines the driver selected vehicle speed. Unless the adaptive cruise control module requests a lower vehicle speed, the ECM will control the vehicle speed to the driver selected set speed.

- The ECM allows automatic braking without disengaging the adaptive cruise control.

Electronic Brake Control Module

The following are the adaptive cruise control System functions performed by the electronic brake control module (EBCM):

- The EBCM controls the operation of the Antilock Brake System.
- The EBCM provides automatic braking for the adaptive cruise control system. The active safety control module will request vehicle deceleration via high speed GMLAN serial data circuit.
- The EBCM determines when the driver–applied brake pressure is active. The EBCM will communicate this status via the GMLAN serial data circuit to the BCM.
- The EBCM releases vehicle automatic braking when there is a throttle override by the driver pressing the accelerator.
- The EBCM predicts brake temperatures. Due to automatic braking, the brake system may overheat. When the brakes are overheated, the EBCM requests the adaptive cruise control System to be temporarily shut down by the ECM until the brakes cool to a normal operating temperature.

Transmission Control Module

The transmission control module (TCM) provides a down shift to protect the brakes. When the TCM detects some driver braking activity or adaptive cruise control automatic braking activity, the TCM down shifts the vehicle transmission to increase engine braking. This helps reduce braking activity, extend brake pad life and reduce brake system overheating.

Instrument Cluster

The driver information center is a part of the instrument cluster and displays the adaptive cruise control system warning messages. The active safety control module requests messages to be displayed on the driver information center by sending a GMLAN request to the BCM. The BCM sends a GMLAN serial data request to the instrument cluster demanding the display of the warning message. When the message is acknowledged by the driver and the cause of the message resolved, the driver information center turns the message off. The adaptive cruise control system will not operate if the driver information center fails.

Cruise Control Switch

The cruise control switch, functionally is a common feature that is shared between the adaptive cruise control system and the regular cruise control system. The adaptive cruise control system will not operate if any cruise switch fails. The cruise control switch comprises the following cruise control function switches:

- On/Off switch
- Set/decrease switch
- Resume/increase switch

The cruise control function switches are arranged in a resistive ladder design whereby each switch function is set up with different resistance values. The BCM through the cruise control switch signal circuit detects a predetermined voltage value when any cruise control switch function is activated. The associated cruise control function signal detected by the BCM is then sent to the engine control module (ECM) as a GMLAN serial data circuit message. The ECM on receiving the message provides the cruise control function requested by the BCM. The ECM is responsible for recognizing and responding to cruise control switch requests sent by the BCM. The cruise control function switches are used by the ECM to communicate to the active safety control module the driver selected vehicle speed. The driver selected vehicle speed is communicated through GMLAN serial data circuit to the active safety control module and the BCM. The adaptive cruise control system engages and adjusts vehicle speeds based on the activation of the following cruise control function switches:

Cruise Control On/Off Switch

The BCM monitors the switch signal circuit in order to determine when the On/Off switch is disabled or activated. The BCM detects a predetermined voltage value on the switch signal circuit. The On/Off switch state is then relayed to the ECM via the GMLAN serial data circuit. The ECM sends the On/Off switch input status to the active safety control module. When the On/Off switch is turned ON, the adaptive cruise control system enters either a standby enabled or a standby disabled mode. The standby enabled mode indicates that every condition required for the adaptive cruise control system to function has been met, but the adaptive cruise control is not engaged. When the adaptive cruise control is in the standby disabled mode, the conditions necessary for the adaptive cruise control system to function has not been met. When the On/Off switch is turned OFF, the adaptive cruise control will enter the disabled mode. The adaptive cruise control will not activate in the disabled mode.

Cruise Control Set/Decrease Switch

The adaptive cruise control system is engaged when the adaptive cruise control On/Off switch is turned ON and the set/decrease switch is momentarily pressed and released . When the set/decrease switch is pressed, the selected vehicle speed is set to the current vehicle speed by the ECM. The vehicle speed must be at or greater than 40 km/h (25 MPH). The selected vehicle speed is displayed by the driver information center. While in the engaged state, the selected vehicle speed and the following distance can be adjusted. Pressing and holding the set/decrease switch, when the adaptive cruise control system is engaged, will decrease the selected vehicle speed without deactivating the adaptive cruise control. Momentarily pressing and releasing the set/decrease switch, when the adaptive cruise control is engaged, decreased the selected vehicle speed by 1.6 km/h (1 MPH) for each time that the set/decrease switch is pressed.

Cruise Control Resume/Increase Switch

The resume/increase switch is used in order to increase the selected vehicle speed when adaptive cruise control is active. The amount selected vehicle speed can be increased from the resume/increase switch depends on how long the switch is pressed. The presence of a slower moving vehicle in the path of the adaptive cruise control vehicle will limit the extent to which the selected vehicle speed can be achieved. If there is no preceding vehicle in front, limiting the adaptive cruise control vehicle acceleration, then the vehicle speed that is attained is the new selected vehicle speed. The current selected vehicle speed is displayed by the driver information center. Acceleration is terminated when the resume/increase switch is released. Momentarily pressing and releasing the resume/increase switch will allow the selected vehicle to accelerate in at 1.6 km/h (1 MPH) increments for each time that the resume/increase switch is momentarily pressed.

Gap Switch

The gap switch allows the driver to determine how closely the adaptive cruise control vehicle follows a target vehicle while adaptive cruise control is engaged. When the adaptive cruise control vehicle speed is being limited due to a slower travelling vehicle, the adaptive cruise control vehicle speed is automatically controlled to the follow speed limit. The gap switch has 3 following distance selections that range from 1–2 s. The gap switch following distance between the adaptive cruise control vehicle and the target vehicle is expressed in time as opposed to actual distance. The distance maintained for a selected gap will vary based on vehicle speed. The faster the vehicle speed, the further back you will follow. The gap setting can only be adjusted when the adaptive cruise control system is engaged. The gap switch is hard-wired to the BCM. Based on voltage variations, the BCM is able to read the gap switch selection and communicates the switch status on the GMLAN serial data circuit to the active safety control module. The gap switch is a momentary switch.

The initial push of the gap switch recalls the current setting and activates the display. Subsequent pushes of the gap switch will change the gap setting.

Driver Information Messages

Adaptive Cruise Control Temporarily Unavailable

The active safety control module will send this message if the adaptive cruise control has been disengage or disabled. There are many reasons that can cause this, some will also set DTCs. Check vehicle for DTCs and also check the adaptive cruise control enable and disengage scan tool data. Definitions of parameters can be found in active safety control module scan tool information.

Service Driver Assist System

This message can be set by either the active safety control module if there is a problem with the driver assist system or by the memory seat module if there is a problem with the haptic seat circuits. Check vehicle for DTCs.

Service Adaptive Cruise Control and Service Front Camera

The message is set if the active safety control module is not communicating to the instrument cluster. Check vehicle for DTCs.

Set Speed

The adaptive cruise control vehicle set speed is displayed at all times in the driver information center when adaptive cruise control is engaged. The active safety control module set speed display request is sent to the instrument cluster via the GMLAN serial data circuit.

Follow Distance

The driver information center displays the driver selected following distance when adaptive cruise control is engaged and the gap switch is active. The current follow distance setting is displayed in the driver information center for a few seconds after the gap switch is pressed to increase or decrease the following distance. The active safety control module follow distance display request is sent to the instrument cluster via the GMLAN serial data circuit.

Vehicle Ahead Indicator

The vehicle ahead indicator is displayed in the instrument cluster hen the radar identifies an in-path vehicle. The vehicle ahead indicator is a warning to the driver that a vehicle is ahead. The indicator also serves as a feedback to the driver that the radar is functioning properly. The active safety control module commands the display of the vehicle ahead indicator via a GMLAN serial data message to the instrument cluster. The vehicle ahead indicator only displays with the adaptive cruise control active and may sometimes display for stationary road objects.

Rear Vision Camera Description and Operation

The rear vision camera system consists of the rearview camera and the infotainment system.

When the transmission is placed into R, 12 V is applied to the reverse lamp control circuit by the body control module (BCM). The rearview camera monitors this circuit and when 12 V is seen, indicating that the transmission is in R, the rearview camera will activate. The rearview camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rearview camera to the infotainment system. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and cause a degraded video image. The shield is grounded by the rearview camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

Safety Alert Seat Description and Operation

The active safety seat provides a vibration in the driver's seat bottom cushion to alert the driver of a number of concerns. There are two motors providing the vibration and are located on the left and right sides of the seat cushion. Depending on the alert, either the left, right, or both motors will activate.

The active safety seat is made up of the following components:

- Seat Memory Control Module
- Haptic Seat Motor – Driver Left
- Haptic Seat Motor – Driver Right

Seat Memory Control Module

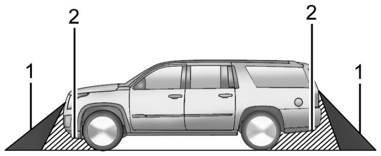
The seat memory control module receives serial data messages from other modules and provides a voltage output to activate haptic signal motors. The seat memory control module will pulse the left, right, or both motors with the number of pulses requested over serial data. The module monitors the circuits for open, short to ground, and short to voltage conditions and will set DTCs if a problem is detected.

Haptic Seat Motor

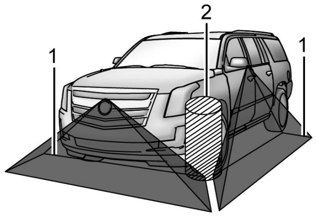
The motors are located in the driver's seat bottom cushion and are positioned on the left and right sides. The motors are connected to ground and receive voltage from the seat memory control module.

Surround Vision Camera Description and Operation

Warning: The Surround Vision Cameras have blind spots and will not display all objects near the corners of the vehicle. Folding side mirrors that are out of position will not display surround view correctly. Always check around the vehicle when parking or backing.



1. View Displayed by the Surround Vision Camera
2. Area Not Shown



1. View Displayed by the Surround Vision Camera
2. Area Not Shown

The surround vision camera system consists of the following components:

- B87 Rearview Camera
- B174G Frontview Camera – Grille
- K157 Video Processing Control Module
- A11 Radio **OR** K74 Human Machine Interface Module
- B225L Sideview Camera – Left
- B225R Sideview Camera – Right

When the vehicle is traveling at speeds slower than 6 mph (10kph) the video processing control module will power up the cameras and send a video signal to the radio or human machine interface module.

The following conditions may cause a degraded surround vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

Surround Vision displays an overhead view of the area surrounding the vehicle, along with the front or rear camera views in the center stack. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside rearview mirrors, and the rear vision camera is above the license plate.

Features of the Surround Vision System

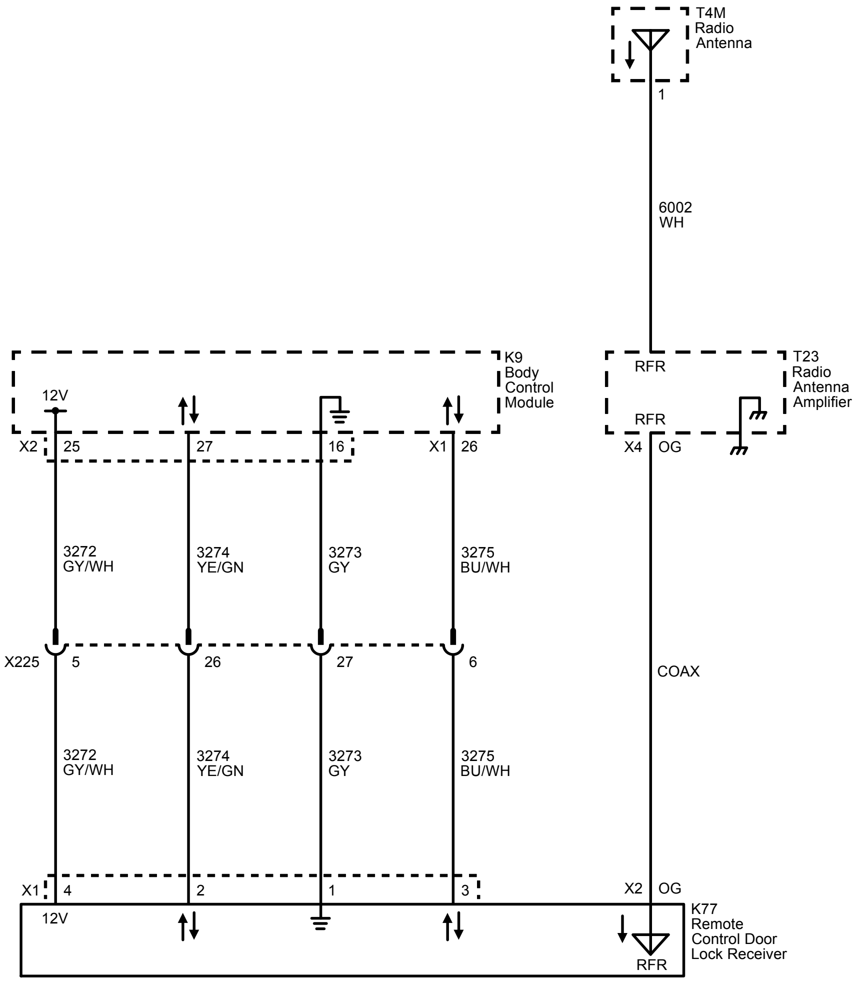
- Rear camera (B87 Rearview Camera) view alongside overhead view is displayed in reverse
- Front camera (B174G Frontview Camera – Grille) view alongside overhead view is displayed after shifting out of reverse to Neutral or Drive
- Will display front view when front park assist object is within trigger range calibration value (30 cm (12 in) in a forward gear
- Image is removed from display when vehicle speed exceeds speed calibration (10kph/6 mph) or button press / screen touch

System Operation

The video processing control module sends voltage and a constant ground to power the cameras. Video signal + and video signal – circuits carry the video image from the cameras to the video processing control module for processing. The video processing control module will then send the processed image output to infotainment system by Video signal + and video signal – circuits. Additionally, all the video signal circuits are twisted and shielded to prevent any interference which may lead to a loss of video signal resolution and cause a degraded video image. These circuits must not be spliced/removed from shielding or will cause image degradation.

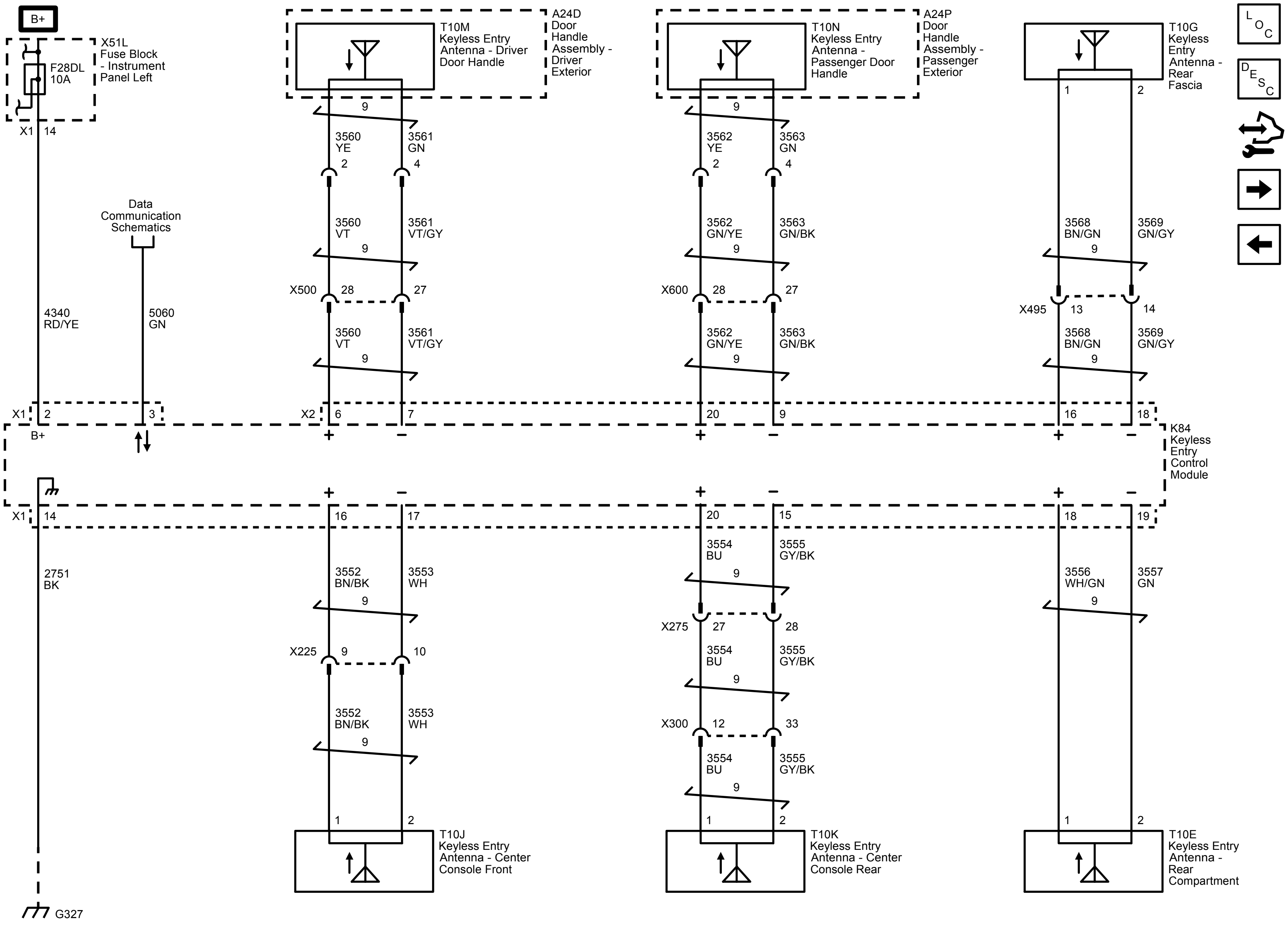
The video processing control module receives CAN information from Rear Park Assist object detection module and Steering Wheel angle from body control module during Reverse. A warning triangle may display during the 360 surround view screen if Rear Parking Assist has detected an object during a reverse. This triangle changes from amber to red and increases in size the closer the object. Also a dynamic guideline is displayed in Reverse to show the projected path of the vehicle.

Keyless Entry - Active



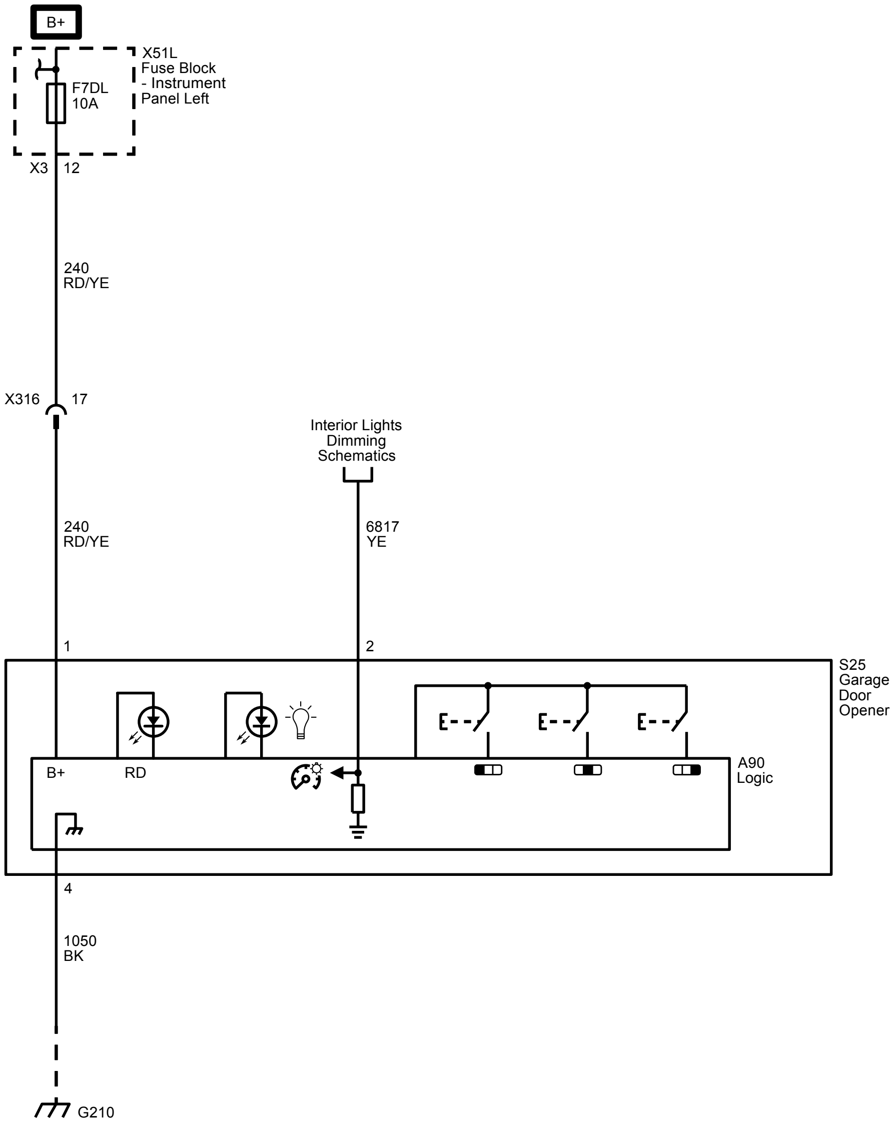
T4M
Radio
Antenna
1
6002
WH
K9
Body
Control
Module
12V
X2
25
27
16
X1
26
RFR
T23
Radio
Antenna
Amplifier
RFR
X4
OG
3272
GY/WH
3274
YE/GN
3273
GY
3275
BU/WH
X225
5
26
27
6
COAX
3272
GY/WH
3274
YE/GN
3273
GY
3275
BU/WH
X1
4
2
1
3
X2
OG
12V
K77
Remote
Control Door
Lock Receiver
RFR

Keyless Entry - Passive, and Keyless Start


B+
X51L
Fuse Block
- Instrument
Panel Left
F28DL
10A
X1 14
4340
RD/YE
Data
Communication
Schematics
5060
GN
X1 2
3
B+
T10M
Keyless Entry
Antenna - Driver
Door Handle
A24D
Door
Handle
Assembly -
Driver
Exterior
9
3560
YE
3561
GN
2
4
3560
VT
3561
VT/GY
9
X500
28
27
3560
VT
3561
VT/GY
9
X2
6
7
T10N
Keyless Entry
Antenna -
Passenger Door
Handle
A24P
Door
Handle
Assembly -
Passenger
Exterior
9
3562
YE
3563
GN
2
4
3562
GN/YE
3563
GN/BK
9
X600
28
27
3562
GN/YE
3563
GN/BK
9
20
9
T10G
Keyless
Entry
Antenna -
Rear
Fascia
1
2
3568
BN/GN
3569
GN/GY
9
X495
13
14
3568
BN/GN
3569
GN/GY
9
16
18
K84
Keyless
Entry
Control
Module
+
−
X1 14
2751
BK
G327
16
17
3552
BN/BK
3553
WH
9
X225
9
10
3552
BN/BK
3553
WH
9
1
2
T10J
Keyless Entry
Antenna - Center
Console Front
20
15
3554
BU
3555
GY/BK
9
X275
27
28
3554
BU
3555
GY/BK
9
X300
12
33
3554
BU
3555
GY/BK
9
1
2
T10K
Keyless Entry
Antenna - Center
Console Rear
18
19
3556
WH/GN
3557
GN
9
1
2
T10E
Keyless Entry
Antenna -
Rear
Compartment
LOC
DESC

Garage Door Opener (UG1)

LOC
DESC


B+
X51L
Fuse Block
- Instrument
Panel Left
F7DL
10A
X3
12
240
RD/YE
X316
17
240
RD/YE
Interior Lights
Dimming
Schematics
6817
YE
1
2
S25
Garage
Door
Opener
A90
Logic
B+
RD
4
1050
BK
G210

Description and Operation

Garage Door Opener Description and Operation

The garage door opener is fixed and rolling code capable. Rolling code is a system that allows the code that the customers receiver receives from the garage door opener to change every time the garage door opener is used within operating range of the receiver. Rolling code programming requires the customer to push a learn/program button on the garage door opener receiver at their home. This button is usually located on the receiver unit under a cover (light cover) on one end of the unit. The customer must follow the garage door opener manufacturers instructions to program/learn the receiver to accept the Universal Home Remote System as an authorized opener for their unit . When the receiver and the garage door opener are initially programmed together, a code is established and a new code is created for every new transmission. The software in the receiver recognizes the garage door opener and accepts the new code.

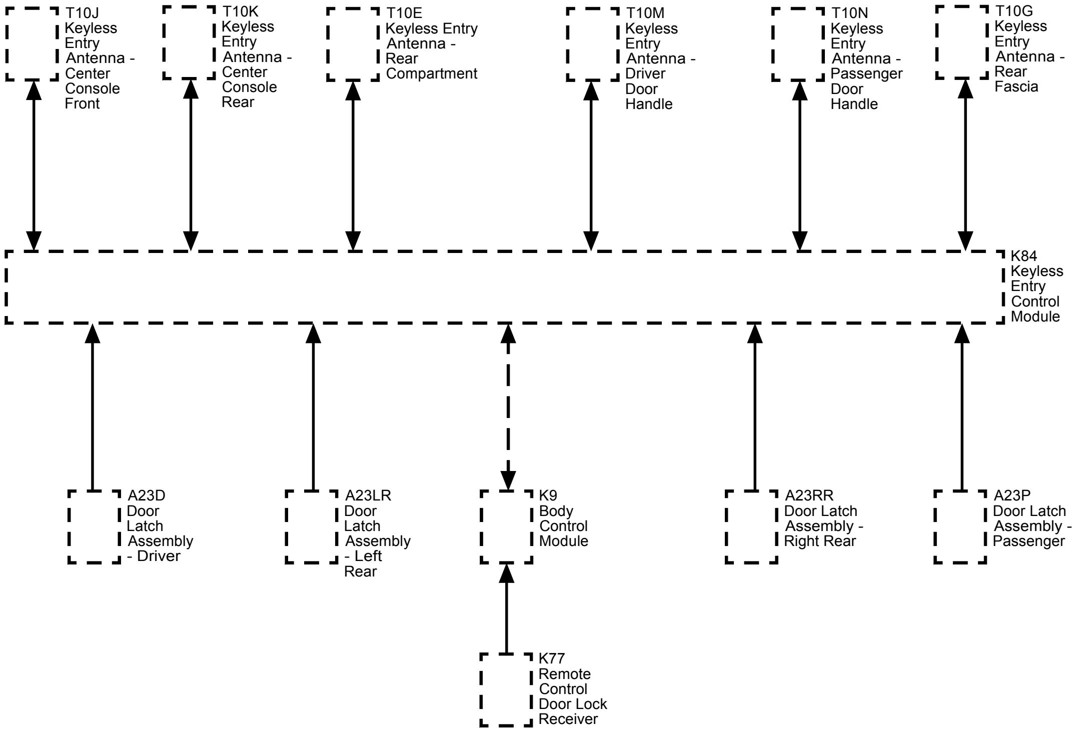
The garage door opener is compatible with most, but not all types and brands of transmitters.

The garage door opener is a transmitter operating between 288–434 MHz. The power and range of the transmitter is limited to comply with laws governing the generation of radio frequency interference. The transmitter is programmed by the user to accept the signal generated by the user's transmitters.

The garage door opener has 3 buttons that may be programmed for individual transmitter/receiver combinations to control up to 3 garage door openers, security gates, lighting systems, etc. Each button represents a transmitter code section of the transmitter, which operates separately from any other button, and may be considered a separate transmitter. Operation consists of simply pressing a button to activate the corresponding transmitter.

Keyless Entry System Description and Operation (With ATH)

Keyless Entry System Description and Operation Block Diagram


T10J Keyless Entry Antenna - Center Console Front
T10K Keyless Entry Antenna - Center Console Rear
T10E Keyless Entry Antenna - Rear Compartment
T10M Keyless Entry Antenna - Driver Door Handle
T10N Keyless Entry Antenna - Passenger Door Handle
T10G Keyless Entry Antenna - Rear Fascia
K84 Keyless Entry Control Module
A23D Door Latch Assembly - Driver
A23LR Door Latch Assembly - Left Rear
K9 Body Control Module
A23RR Door Latch Assembly - Right Rear
A23P Door Latch Assembly - Passenger
K77 Remote Control Door Lock Receiver

Keyless Entry System Description and Operation – Active

The keyless entry system is a vehicle entry device. The keyless entry system is used in conjunction with the door locks to unlock the vehicle. Keyless entry will lock/unlock a door or open the rear compartment lid when a corresponding button on the keyless entry transmitter is pressed. This is accomplished by the transmitter sending a radio frequency to the remote control door lock receiver antenna that has a direct link to the body control module (BCM). The BCM interprets the signal and activates the requested function or requests the appropriate ECU to activate the function via a serial data message. A low transmitter battery or radio frequency interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High radio frequency traffic areas, such as gas stations that use pay-at-the-pump radio frequency transponders, may also cause interference that could lead to a malfunction. Keyless entry allows you to operate the following features:

- Door lock/unlock
- Rear compartment lid release
- Illuminated entry lamps
- Panic alarm/vehicle locator
- Remote vehicle start
- Automatic window express down, if equipped. Automatic window express up, if equipped

Keyless Entry System Description and Operation – Passive

Passive keyless entry allows entry to a locked vehicle without pressing any buttons on the keyless entry transmitter. The passive entry system use low frequency antennas in several different areas on the vehicle to determine the location of the transmitter. When passively opening a locked door or the rear compartment, you must have a programmed transmitter with you in your pocket, purse, or briefcase within a one meter range.

When an exterior door handle button is pressed or the rear compartment touch pad is pressed, the low frequency antenna sends out a challenge to the keyless entry transmitter. Because of the low frequency, communication range is limited. The antenna will emit the challenge in a one meter range. The transmitter must be within this range to receive the challenge. The transmitter receives this challenge and emits it's response as an RF message, which is received by the remote control door lock receiver. If the response is correct, entry into the vehicle will be allowed.

As a customer convenience feature, the keyless entry system will notify the driver if the transmitter has been left in the vehicle after exiting by chirping the vehicle horn three times. This may be turned off using vehicle personalization. Also, if the transmitter is left in the vehicle after the central door lock switch has been used to lock the vehicle, the driver door will remain unlock after exiting the vehicle. This is intended to prevent locking the transmitter in the vehicle and being unable to access it.

Keyless Entry System Description and Operation – Keyless Start

The keyless start portion of the keyless entry system allows vehicle starting, having only the transmitter as your key. The keyless start system use low frequency antennas in three different locations on the vehicle to determine the location of the transmitter. Multiple antenna are used to ensure complete coverage of the vehicle interior and rear compartment. When using the keyless start system, a programmed transmitter must be in the vehicle's interior, in the driver's pocket, purse, or briefcase.

When the ignition mode switch is pressed, the low frequency antennas emit a challenge to the keyless entry transmitter. The transmitter receives this challenge and emits it's response as an RF message, which is received by the remote control door lock receiver. If the response is correct, vehicle starting will be allowed. If RF communication is interrupted, a “No Remote Detected” message will be displayed on the DIC. In these cases, the transmitter can be placed in the transmitter pocket located in the center console, under the cupholder. The immobilizer antenna coil is located directly beneath the transmitter pocket. Placing the transmitter in the pocket will create a low powered coupling between the transmitter and immobilizer antenna, allowing communications to occur and enabling vehicle starting.

The keyless entry system has the following components:

- Keyless entry integrated key/transmitter
- Driver and front passenger door antennas (part of the door handle assembly)
- Driver and front passenger door handle switches (part of the door handle assembly)
- Rear fascia antenna
- Front console antenna
- Rear console antenna
- Trunk antenna (rear compartment)
- Body control module (BCM)
- Keyless entry control module
- Immobilizer antenna coil assembly
- Remote control door lock receiver

Keyless Entry Transmitters

By operating any of the exterior door handle buttons, a nearby transmitter is challenged by a keyless entry antenna. The transmitter will send an RF response to the remote control door lock receiver, which communicates with the BCM. The BCM will interpret this communication and either allow entry into the vehicle or deny it.

Door Antennas

The keyless entry door antennas are used to transmit low frequency communications to the keyless entry transmitters.

The keyless entry door antennas are located in the left front and right front exterior door handle bracket. The antennas are serviced as part of the door handle assembly. The antennas are controlled by the keyless entry control module. When the exterior door handle button is pressed, the respective antenna will send out a challenge to the keyless entry transmitter, which begins the passive entry communications.

Rear Fascia Antenna

The rear fascia antenna is used to transmit low frequency communication to the keyless entry transmitters for entry to rear compartment.

The rear fascia antenna is located behind the rear fascia. The antenna is controlled by the keyless entry control module. When the rear compartment touch pad is pressed, the antenna sends out a challenge to the keyless entry transmitter, which begins the passive entry communications.

Front Console Passive (Instrument Panel) Antenna

This antenna is located in the lower instrument panel near the front of the center console.

The front console antenna is used for vehicle starting functions. When the ignition mode switch is pressed, the antenna is energized or "pinged". This emits a low frequency challenge signal that is received by the keyless entry transmitter. The transmitter will then reply to this challenge with a response and, if correct, vehicle starting will occur.

Rear Console Antenna

This antenna is located in the rear of the center console.

The rear console antenna is used for vehicle starting functions. When the ignition mode switch is pressed, the antenna is energized or "pinged". This emits a low frequency challenge signal that is received by the keyless entry transmitter. The transmitter will then reply to this challenge with a response and, if correct, vehicle starting will occur.

Rear Compartment Antenna

This antenna is located in the center of the rear compartment metal floor pan, near the seatback.

The rear compartment antenna is used for vehicle starting functions. When the ignition mode switch is pressed, the antenna is energized or "pinged". This emits a low frequency challenge signal that is received by the keyless entry transmitter. The transmitter will then reply to this challenge with a response and, if correct, vehicle starting will occur.

Immobilizer Antenna Coil Assembly

The immobilizer coil assembly is located in the center console, directly beneath the transmitter pocket. If the transmitter battery is dead, weak, or the RF signal is being interrupted, the transmitter may be placed in the pocket to create a low powered coupling between the transmitter and immobilizer antenna, allowing communications to occur and enabling vehicle starting.

The immobilizer antenna coil is controlled by the BCM. The immobilizer control module is also active when learning vehicle keys.

Keyless Entry Control Module

The keyless entry control module is a multi-function module which performs the following keyless entry system functions:

- Activating vehicle antennas for passive keyless entry functions
- Activating vehicle antennas for keyless start functions
- Backup control for the ECM accessory wakeup and the run/crank relay
- If equipped, controls the electronic steering column lock
- Receiver of the exterior door handle switch inputs and door open switch (not the door ajar switch)
- Ignition mode switch monitoring

OnStar® Remote Link

A vehicle operator may have the ability to perform some of the keyless entry functions using applications on personal devices such as smart phones. Refer to CELL Link Error - Link target cell (cell ID 149754) is invalid for this publication..

Body Control Module (BCM)

The BCM is a multi-function module that performs the following functions:

- Receive and authenticate active transmitter and keyless start signals from the remote control door lock receiver
- Determines the functionality requested by the transmitter signal
- Performs the function requested by the transmitter signal

Unlock Driver Door Only – Active

Momentarily press the transmitter UNLOCK button in order to perform the following functions:

- Unlock only the driver door
- Illuminate the interior lamps for a determined length of time, or until the ignition is turned ON
- Flash the exterior lights, if enabled through personalization
- Disarm the Content Theft Deterrent (CTD) system
- Deactivate the CTD system when in the alarm mode

Unlock All Doors – Second Operation – Active

Momentarily press the transmitter UNLOCK button a second time, within 5 seconds of the first press, to perform the following function:

Unlock the remaining doors

Unlock Driver Door Only – Passive

If enabled through personalization, approach the driver door with a valid keyless entry transmitter and press the door handle button to perform the following functions:

- Unlock and open only the driver door
- Disarm the CTD system, if equipped
- Deactivate the CTD system when in the alarm mode

Unlock All Doors – Passive

Approach any non driver door (front or rear) or, if enabled through personalization, the driver door with a valid keyless entry transmitter and press the door handle button to perform the following functions:

- Unlock all vehicle doors
- Disarm the CTD system, if equipped
- Deactivate the CTD system when in the alarm mode

Lock All Doors – Active

Press the transmitter LOCK button to perform the following functions:

- Lock all vehicle doors
- Immediately turn off the interior lamps
- Flash the exterior lights, if enabled through personalization
- Chirp the horn, if enabled through personalization
- Arm the CTD system

Lock All Doors – Passive

Exit the vehicle (with ignition off) with the keyless entry transmitter to automatically perform the following functions, if equipped.

- Lock all vehicle doors after a delay
- Flash the exterior lights, if enabled through personalization
- Chirp horn, if enabled through personalization
- Arm the CTD system

When all doors are closed, they can also be locked from the exterior by pressing a front door handle button while having a valid transmitter within range.

If more than one keyless entry transmitter is within a vehicle and the Keyless Entry System detects that one or more transmitters have been left in the vehicle after vehicle is locked, any transmitter left within the vehicle will be temporarily deactivated until:

- A button on the deactivated key fob is pressed (will only activate the fob whose button is pressed)
- A passive unlock of vehicle occurs
- Change in power mode occurs

Rear Compartment Lid Release – Active

If the vehicle transaxle is in PARK or NEUTRAL and the ignition is in the OFF position, a single press of the transmitter rear compartment release button will open the rear compartment lid.

Rear Compartment Lid Release – Passive

Approach the rear of the vehicle with a valid keyless entry transmitter. Press the rear compartment lid release touch pad. The rear compartment lid will open.

If vehicle is not equipped with trunk antenna, a keyless entry transmitter left inside the trunk will allow the trunk to be reopened at any time. This feature will not allow a customer to lock the transmitter in the trunk.

If vehicle has a trunk antenna and one or more transmitters are left in the trunk or interior of the vehicle, those transmitter(s) will be deactivated when the vehicle becomes locked.

Vehicle Locator/Panic Alarm/Active

A single press of the panic button performs the following functions. Some functions may be dependent on personalization settings:

- Pulses the horn three times
- Flashes the exterior lamps three times

A press and hold of the panic button performs the following functions:

- Pulses the horn and flashes the parking lamps for 30 second or until the following conditions occur:
  - The panic button is pressed
  - The ignition switch is turned to the RUN position with a valid key

Remote Vehicle Start/Active

The remote vehicle start function allows engine starting while not in the vehicle. It also allows the vehicle HVAC system and other vehicle systems to enable, providing a comfortable vehicle upon entry. The remote vehicle start sequence begins by pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the keyless entry transmitter. The turn signal lamps will illuminate to indicate the vehicle has received the remote start request. Each time a remote vehicle start is performed, the vehicle doors are locked, however they may then be unlocked/locked with the transmitter at any time. Only the first and second vehicle transmitters are able to control the remote vehicle start function. Any additional remote transmitters programmed to the vehicle will perform all other remote functions. Once activated, the engine is allowed to run for 10 minutes. The remote vehicle start time may be extended by an additional 10 minutes by again pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the transmitter. This feature is called a remote vehicle start continue and allows a maximum of 20 minutes of engine running. If the remote vehicle start continue is performed at 7 minutes into the initial 10 minute time-out, a total of 17 minutes of engine running would occur. The remote vehicle start event may be suspended at any time by pressing only the remote vehicle start button on the transmitter or by entering the vehicle and turning ON the hazard lamps.

In between ignition cycles, only two remote vehicle start events may occur or be attempted. Once two events or attempts have been made, future remote vehicle start events will be suspended until the vehicle is started using the ignition.

Enable/Disable Remote Vehicle Start/Active

Using the driver information center, remote vehicle start may be enabled or disabled as a part of vehicle personalization. Refer to the vehicle owners manual for more information.

Hood Ajar Switch/Active

The hood switch provides status of the hood to the BCM for remote vehicle start purposes. The switch is integrated into the hood latch assembly. The hood ajar switch provides 2 separate inputs to the BCM. These separate inputs allow the BCM to actively monitor for a hood ajar switch fault.

Remote Vehicle Start Circuit Description/Active

The BCM receives a signal from the keyless entry transmitter indicating a remote vehicle start request. The BCM uses the following inputs to verify the system is ready for a remote vehicle start event:

- Vehicle is not in valet mode
- All vehicle doors are closed
- Rear compartment lid is not ajar
- The hood is closed
- The doors are locked

- The hazard switch is OFF
- Battery reconnect has not occurred
- Vehicle power mode is correct

When the BCM determines all conditions meet those required for a remote vehicle start event, a message is sent via serial data to the ECM. The ECM relies on the remote vehicle start message from the BCM to enable remote vehicle start when the crank request signal is received. If the ECM does not receive a valid remote vehicle start message, it will not ground the control circuit of the crank relay and start the engine. While the ECM is in remote vehicle start mode it will cut fuel to the engine if any of the following additional conditions occur:

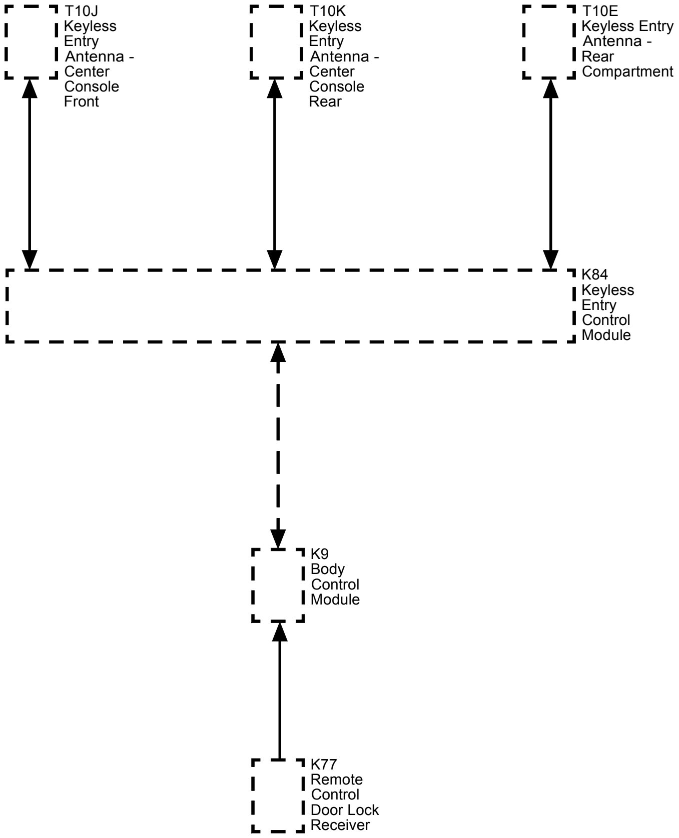
- Vehicle speed is greater than 0
- Transmission is not in P
- Excessive engine coolant temperature
- Low oil pressure
- The malfunction indicator lamp (MIL) is commanded ON
- Engine crank time is greater than 30 seconds
- Excessive engine speed
- Accelerator pedal position too high
- Remote start timer equals 0
- Immobilizer system indicates a theft attempt

Keyless Entry Personalization

Vehicle lock/unlock functions and remote vehicle start settings may be personalized for the vehicle. For functional descriptions and programming instructions, refer to the vehicle owners manual.

Keyless Entry System Description and Operation (Without ATH)

Keyless Entry System Description and Operation Block Diagram



T10J Keyless Entry Antenna - Center Console Front
T10K Keyless Entry Antenna - Center Console Rear
T10E Keyless Entry Antenna - Rear Compartment
K84 Keyless Entry Control Module
K9 Body Control Module
K77 Remote Control Door Lock Receiver

Keyless Entry System Description and Operation

The keyless entry system is a vehicle entry device. The keyless entry system is used in conjunction with the door locks to unlock the vehicle. Keyless entry will lock/unlock the vehicle doors or open the rear compartment lid when a corresponding button on the keyless entry transmitter is pressed. This is accomplished by the transmitter sending a radio frequency to the remote control door lock receiver antenna that has a direct link to the body control module (BCM). The BCM interprets the signal and activates the requested function or requests the appropriate control module to activate the function via a serial data message. A low transmitter battery or radio frequency interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High radio frequency traffic areas, such as gas stations that use pay-at-the-pump radio frequency transponders, may also cause interference that could lead to a malfunction. Keyless entry allows you to operate the following features:

- Door lock/unlock
- Liftgate lock/unlock
- Power liftgate, if equipped
- Illuminated entry lamps
- Panic alarm/vehicle locator
- Remote vehicle start

Keyless Entry System Description and Operation – Keyless Start

The keyless start portion of the keyless entry system allows vehicle starting, having only the transmitter as your key. The keyless start system use low frequency antennas in three different locations on the vehicle to determine the location of the transmitter. Multiple antennas are used to ensure complete coverage of the vehicle interior and rear compartment. When using the keyless start system, a programmed transmitter must be in the vehicle's interior, in the driver's pocket, purse, or briefcase.

When the ignition mode switch is pressed, the low frequency antennas emit a challenge to the keyless entry transmitter. The transmitter receives this challenge and emits it's response as an RF message, which is received by the remote control door lock receiver. If the response is correct, vehicle starting will be allowed. If RF communication is interrupted, a “No Remote Detected” message will be displayed on the DIC. In these cases, the transmitter can be placed in the transmitter pocket located in the center console, under the storage tray. The immobilizer antenna coil is located directly beneath the transmitter pocket. Placing the transmitter in the pocket will create a low powered coupling between the transmitter and immobilizer antenna, allowing communications to occur and enabling vehicle starting.

The keyless entry system has the following components:

- Keyless entry transmitter
- Front console antenna
- Rear console antenna
- Rear compartment antenna
- Body control module (BCM)
- Keyless entry control module
- Immobilizer antenna coil assembly
- Remote control door lock receiver

Keyless Entry Transmitter

The keyless entry transmitters are used to perform various entry functions while away from the immediate area of the vehicle. Keyless entry functions may work at up to 20 m (65 ft) away from the vehicle. Ambient conditions may affect the performance of the keyless entry transmitter and reduce the range at which keyless entry functions operate. Up to eight transmitters may be programmed to a single vehicle.

When pressing the ignition mode switch to change power mode or start the vehicle, a nearby transmitter is challenged by a passive keyless entry antenna. The transmitter will send an RF response to the remote control door lock receiver, which communicates with the BCM. The BCM will interpret this communication and if the transmitter response is valid, allow the vehicle to change power mode or start the vehicle.

Front Console Passive (Instrument Panel) Antenna

This antenna is located in the lower instrument panel near the front of the center console.

The front console antenna is used for vehicle starting functions. When the ignition mode switch is pressed, the antenna is energized or "pinged". This emits a low frequency challenge signal that is received by the keyless entry transmitter. The transmitter will then reply to this challenge with a response and, if correct, vehicle starting will occur.

Rear Console Antenna

This antenna is located in the rear of the center console.

The rear console antenna is used for vehicle starting functions. When the ignition mode switch is pressed, the antenna is energized or "pinged". This emits a low frequency challenge signal that is received by the keyless entry transmitter. The transmitter will then reply to this challenge with a response and, if correct, vehicle starting will occur.

Rear Compartment Antenna

This antenna is located in the center of the rear compartment metal floor pan, near the seatback.

The rear compartment antenna is used for vehicle starting functions. When the ignition mode switch is pressed, the antenna is energized or "pinged". This emits a low frequency challenge signal that is received by the keyless entry transmitter. The transmitter will then reply to this challenge with a response and, if correct, vehicle starting will occur.

Remote Control Door Lock Receiver

The remote control door lock receiver is located on the vehicle windshield, directly in front of the inside rearview mirror.

The remote control door lock receiver is control by and directly communicates with the body control module (BCM). When the transmitter receives a low frequency challenge from an antenna, it responds with an RF message. This RF message is received by the remote control door lock receiver and communicated to the BCM. If the RF message is a valid response to the low frequency challenge, vehicle starting will be allowed.

Immobilizer Antenna Coil Assembly

The keyless entry immobilizer coil assembly is located in the center console, directly beneath the transmitter pocket. If the transmitter battery is dead, weak, or the RF signal is being interrupted, the transmitter may be placed in the pocket to create a low powered coupling between the transmitter and immobilizer antenna, allowing communications to occur and enabling vehicle starting.

The immobilizer antenna coil is controlled by the BCM. The immobilizer control module is also active when learning transmitters.

Keyless Entry Control Module

The keyless entry control module is a multi-function module which performs the following keyless entry system functions:

- Activating vehicle antennas for keyless start functions
- Backup control for the ECM accessory wakeup and the run/crank relay
- Redundant power moding, in addition to the BCM
- Ignition mode switch monitoring

OnStar® Remote Link

A vehicle operator may have the ability to perform some of the keyless entry functions using applications on personal devices such as smart phones. Refer to CELL Link Error - Link target cell (cell ID 149754) is invalid for this publication..

Body Control Module (BCM)

The BCM is a multi-function module that performs the following functions:

- Receive and authenticate active transmitter and keyless start signals from the remote control door lock receiver
- Determines the functionality requested by the transmitter signal

- Performs the function requested by the transmitter signal

Unlock Driver Door Only

Momentarily press the transmitter UNLOCK button in order to perform the following functions:

- Unlock only the driver door
- Illuminate the interior lamps for a determined length of time, or until the ignition is turned ON
- Flash the exterior lights, if enabled through personalization
- Disarm the content theft deterrent system
- Deactivate the content theft deterrent system when in the alarm mode

Unlock All Doors – Second Operation

Momentarily press the transmitter UNLOCK button a second time, within 5 seconds of the first press, to perform the following function:

- Unlock the remaining doors and liftgate

Lock All Doors

Press the transmitter LOCK button to perform the following functions:

- Lock all vehicle doors and the liftgate
- Immediately turn off the interior lamps
- Flash the exterior lights, if enabled through personalization
- Chirp the horn, if enabled through personalization
- Arm the content theft deterrent system

Power Liftgate, if equipped

Press and hold the power liftgate button to perform the following functions:

- Open or close the liftgate using the power liftgate function
- Flash the tail lamps
- Sound the interior power liftgate chime

Vehicle Locator/Panic Alarm/Active

A single press of the panic button performs the following functions. Some functions may be dependent on personalization settings:

- Pulses the horn three times
- Flashes the exterior lamps three times

A press and hold of the panic button performs the following functions:

- A press and hold of the panic button performs the following functions:
- Pulses the horn and flashes the parking lamps for 30 second or until the following conditions occur:
  - The panic button is pressed
  - The ignition mode is turned to the RUN position with a valid keyless entry transmitter

Remote Vehicle Start/Active

The remote vehicle start function allows engine starting while not in the vehicle. It also allows the vehicle HVAC system and other vehicle systems to enable, providing a comfortable vehicle upon entry. The remote vehicle start sequence begins by pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the keyless entry transmitter. The turn signal lamps will illuminate to indicate the vehicle has received the remote start request. Each time a remote vehicle start is performed, the vehicle doors are locked, however they may then be unlocked/locked with the transmitter at any time. Only the first and second vehicle transmitters are able to control the remote vehicle start function. Any additional remote transmitters programmed to the vehicle will perform all other remote functions. Once activated, the engine is allowed to run for 10 minutes. The remote vehicle start time may be extended by an additional 10 minutes by again pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the transmitter. This feature is called a remote vehicle start continue and allows a maximum of 20 minutes of engine running. If the remote vehicle start continue is performed at 7 minutes into the initial 10 minute time-out, a total of 17 minutes of engine running would occur. The remote vehicle start event may be suspended at any time by pressing only the remote vehicle start button on the transmitter or by entering the vehicle and turning ON the hazard lamps.

In between ignition cycles, only two remote vehicle start events may occur or be attempted. Once two events or attempts have been made, future remote vehicle start events will be suspended until the vehicle is started using the ignition.

Enable/Disable Remote Vehicle Start/Active

On some vehicles, remote vehicle start may be enabled or disabled as a part of vehicle personalization by using the driver information center controls. Refer to the vehicle owners manual for more information.

Hood Ajar Switch/Active

The hood switch provides status of the hood to the BCM for remote vehicle start purposes. The switch is integrated into the hood latch assembly. The hood ajar switch provides 2 separate inputs to the BCM. These separate inputs allow the BCM to actively monitor for a hood ajar switch fault.

Remote Vehicle Start Circuit Description/Active

The BCM receives a signal from the keyless entry transmitter indicating a remote vehicle start request. The BCM uses the following inputs to verify the system is ready for a remote vehicle start event:

- Vehicle is not in valet mode
- All vehicle doors are closed
- Rear compartment lid is not ajar
- The hood is closed
- The doors are locked
- The hazard switch is OFF
- Battery reconnect has not occurred
- Vehicle power mode is correct

When the BCM determines all conditions meet those required for a remote vehicle start event, a message is sent via serial data to the ECM. The ECM relies on the remote vehicle start message from the BCM to enable remote vehicle start when the crank request signal is received. If the ECM does not receive a valid remote vehicle start message, it will not ground the control circuit of the crank relay and start the engine. While the ECM is in remote vehicle start mode it will cut fuel to the engine if any of the following additional conditions occur:

- Vehicle speed is greater than 0
- Transmission is not in P
- Excessive engine coolant temperature
- Low oil pressure
- The malfunction indicator lamp (MIL) is commanded ON
- Engine crank time is greater than 30 seconds
- Excessive engine speed
- Accelerator pedal position too high
- Remote start timer equals 0
- Immobilizer system indicates a theft attempt

Keyless Entry Personalization

Vehicle lock/unlock functions and remote vehicle start settings may be personalized for the vehicle. For functional descriptions and programming instructions, refer to the vehicle owners manual.

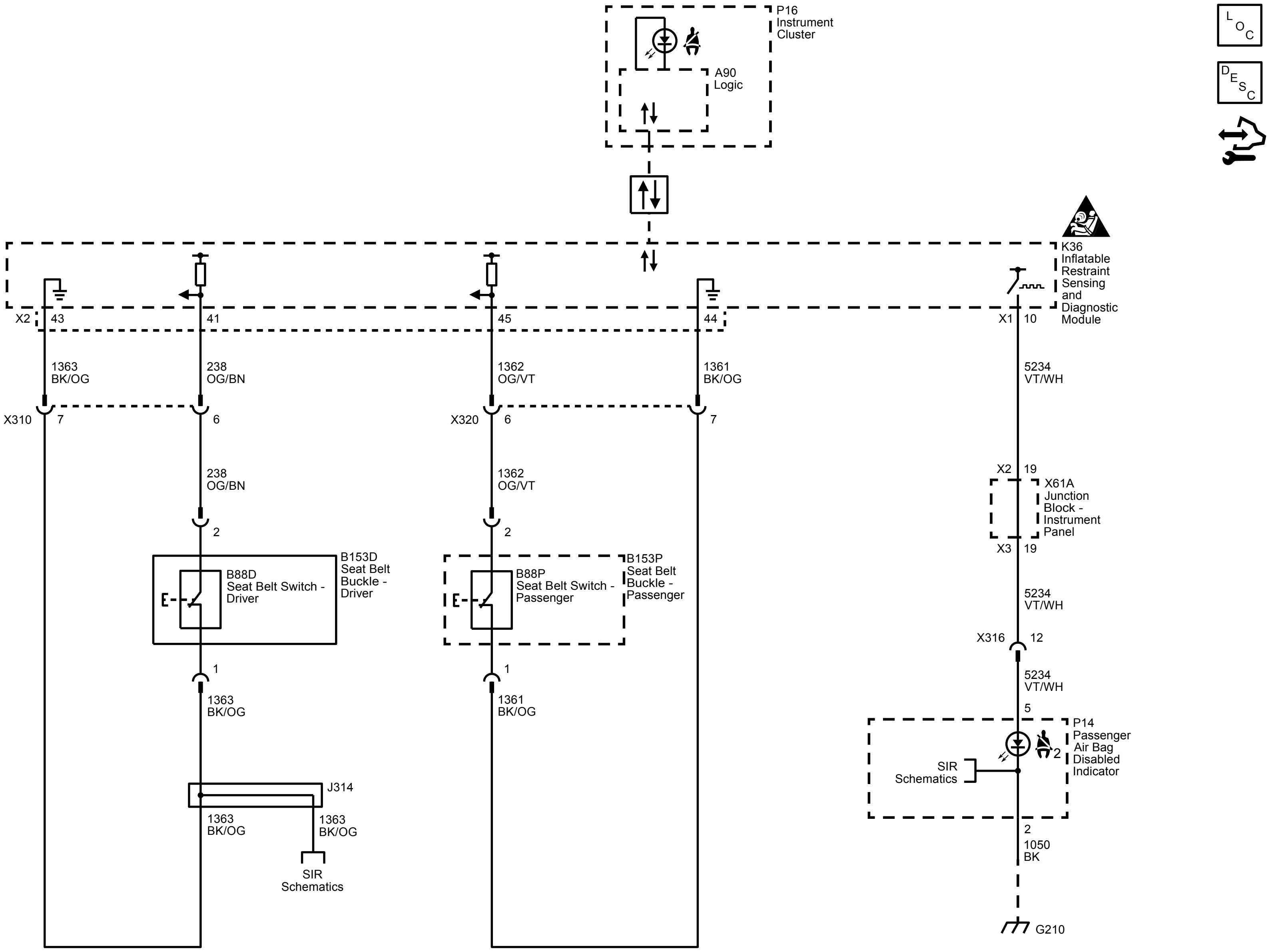
Safety and Security

Seat Belts

Schematic and Routing Diagrams

Seat Belt Schematics

Seat Belts


P16
Instrument
Cluster
A90
Logic
L O C
D E S C
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
X2
43
41
45
44
X1
10
1363
BK/OG
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OG/BN
1362
OG/VT
1361
BK/OG
5234
VT/WH
X310
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6
X320
6
7
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OG/BN
1362
OG/VT
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X2
19
X61A
Junction
Block -
Instrument
Panel
X3
19
B88D
Seat Belt Switch -
Driver
B153D
Seat Belt
Buckle -
Driver
B88P
Seat Belt Switch -
Passenger
B153P
Seat Belt
Buckle -
Passenger
5234
VT/WH
X316
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1
1363
BK/OG
1361
BK/OG
5234
VT/WH
5
J314
P14
Passenger
Air Bag
Disabled
Indicator
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Schematics
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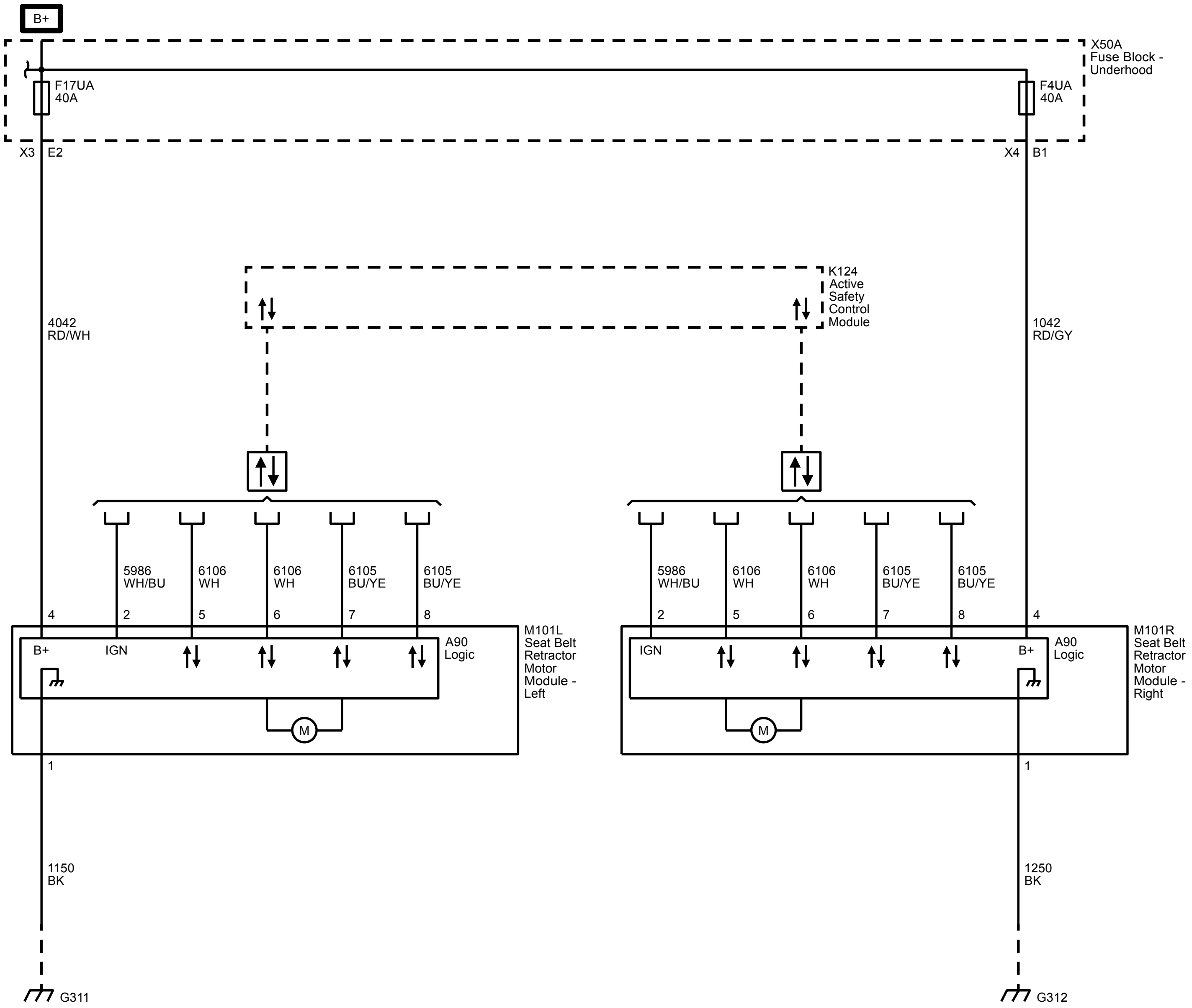
BK/OG
1363
BK/OG
SIR
Schematics
2
1050
BK
G210

Motors (AX7)


B+
X50A
Fuse Block -
Underhood
F17UA
40A
F4UA
40A
X3
E2
X4
B1
4042
RD/WH
1042
RD/GY
K124
Active
Safety
Control
Module
5986
WH/BU
6106
WH
6106
WH
6105
BU/YE
6105
BU/YE
4
2
5
6
7
8
B+
IGN
A90
Logic
M
M101L
Seat Belt
Retractor
Motor
Module -
Left
5986
WH/BU
6106
WH
6106
WH
6105
BU/YE
6105
BU/YE
2
5
6
7
8
4
IGN
B+
A90
Logic
M
M101R
Seat Belt
Retractor
Motor
Module -
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BK
G311
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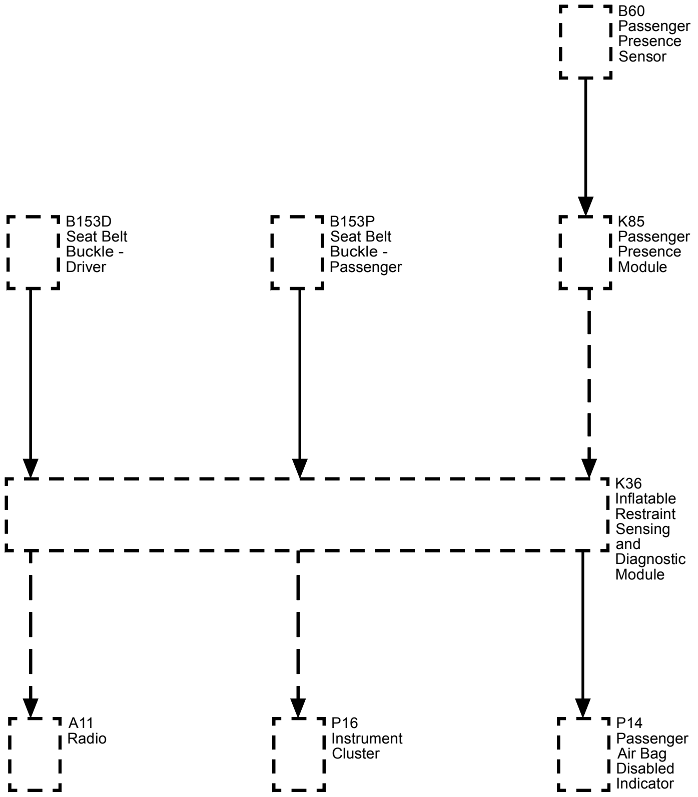
1250
BK
G312

Description and Operation

Seat Belt System Description and Operation

Seat Belt with P14 Block Diagram


B60
Passenger
Presence
Sensor
B153D
Seat Belt
Buckle -
Driver
B153P
Seat Belt
Buckle -
Passenger
K85
Passenger
Presence
Module
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
A11
Radio
P16
Instrument
Cluster
P14
Passenger
Air Bag
Disabled
Indicator

Note: Not all items shown in block diagram are available in this publication

Restraint System

Note: If the vehicle has been in a collision, refer to CELL Link Error - Link target cell (cell ID 69000) is invalid for this publication.

The vehicle has front and rear seat belts that are the primary means of occupant restraint. Seat belts help to keep the occupants inside the passenger compartment and to gradually reduce the impact forces during the following events:

- Frontal impact type crashes
- Rear impact type crashes
- Side impact type crashes
- Roll-over type crashes

All seat belt retractors have emergency locks. The retractors remain unlocked during normal operation and under normal driving conditions. The retractors remain unlocked during normal conditions in order to allow free movement of the upper body of each occupant. A pendulum locks the seat belt webbing into position. The pendulum causes a locking bar to engage a cog on the spool of the retractor mechanism when the following conditions occur:

- A rapid extraction of the seat belt webbing from the retractor
- An abrupt change in vehicle speed
- An abrupt change in vehicle direction
- Operation of the vehicle on a steep upgrade

- Operation of the vehicle on a downgrade

The seat belts have an automatic locking (cinch) feature. The cinch feature is activated when the seat belt webbing is completely extended from the retractor. The cinch feature prevents the webbing from extending beyond the position from which it is allowed to retract. Use of the cinch feature is recommended for securing a child seat. The cinch feature may be cancelled by allowing the webbing to wind back completely into the retractor. After the cinch feature is cancelled, the webbing is unlocked. After the cinch feature is cancelled, the webbing will extend from the retractor. This vehicle is also equipped with a supplemental inflatable restraint (SIR) system. Refer to CELL Link Error - Link target cell (cell ID 62350) is invalid for this publication.

Motorized Seat Belts

A motorized seat belt is a seat belt with a motor coupled to the shoulder belt retractor. The motorized seat belt provides the driver and passenger a sense of safety and, in the case of severe braking or a crash, more quickly couples the occupant to the vehicle, enhancing the safety to the occupant.

Motorized seat belts monitor vehicle information to determine when to perform each of the following retractions

- Full retraction for such situations but not limited to: panic braking and or skidding
- Dynamic support for lateral and longitudinal dynamics

Preconditions for motorized seat belt retractions

- Seat belt buckle is latched
- Vehicle speed greater than or equal to 25 kph (16 mph)
- All messages on serial data are received as valid

Triggers that may cause motorized seat belt retractions

- Emergency Braking
- Sudden Emergency / Panic Braking
- High Vehicle Deceleration Detection
- Ice Braking Detection
- Oversteer and Understeer

Motorized seat belt inputs

- Vehicle Power Mode
- Transmission Gear
- Wheel Speeds
- Vehicle Acceleration
- Accelerator Pedal Position
- Steering Wheel Angle and Gradient
- Yaw Rate and Lat/Long Acceleration
- Brake Pedal Position, Gradient, Pressure, Initial Travel
- Vehicle Stability

Motorized seat belt output signals

- Driver information center message – motorized seat belt Failed “Service Automatic Seatbelt Tightening”
- Driver information center message – motorized seat belt Unavailable “Automatic Seatbelt Tightening Unavailable”

Motorized seat belt retractions are inhibited when seat belt unbuckled

Driver and passenger motorized seat belts operate independently

Front Seat Belt System

The front seat belt system includes a driver and passenger seat belt pretensioner retractor. Both front seat belt pretensioners includes a seat belt switch in the seat buckle which controls a reminder lamp and a tone alarm.

Note: The front passenger seat is equipped with a passenger presence detection sensor, which detects an occupant. If the passenger presence detection sensor detects an empty front passenger seat, then the passenger fasten safety belt indicator will be disabled.

- When the driver seat belt is buckled and the ignition switch is turned ON, the following events will occur:
  - The tone alarm will not operate.
  - The reminder lamp will not operate.
- When the driver seat belt is not buckled and the ignition switch is in the ON position, the following events will occur:
  - The tone alarm will operate for 4–8 seconds and then go OFF.

  - The fasten safety belt indicator will turn ON for 20 seconds, until the driver seat belt is buckled.

Rear Seat Belt System

The Rear Seat Belt System includes the following components:

- The rear seat belt retractor is located at the wheelhouse panel and attached to the floor panel by the rear seat shoulder belt retractor bracket.
- The rear seat belt buckles and the center seat belt buckle are attached to each seat.

Child Seat Restraint System

Warning: A child in a rear-facing child restraint can be seriously injured if the right-front passengers air bag inflates. This is because the back of a rear-facing child restraint would be very close to the inflating air bag. NEVER use a rear-facing child restraint in this vehicle. If a forward-facing child restraint is suitable for your child, ALWAYS move the front passenger seat as far back as it will go and then install the child restraint. Be sure the child restraint position does not conflict with any additional requirements provided by the manufacturer. For more information, refer to the vehicle owners manual and the instruction that came with the child restraint.

A child in a rear-facing child restraint can be seriously injured if the right-front passengers air bag inflates. This is because the back of a rear-facing child restraint would be very close to the inflating air bag. NEVER use a rear-facing child restraint in this vehicle. If a forward-facing child restraint is suitable for your child, ALWAYS move the front passenger seat as far back as it will go and then install the child restraint. Be sure the child restraint position does not conflict with any additional requirements provided by the manufacturer. For more information, refer to the vehicle owners manual and the instruction that came with the child restraint.

The child seat may only be used in a forward facing seating location. The child seat should be installed and secured according to the manufacturer's directions. If the child seat has a top strap, the seat will need to be anchored. Passengers should not be allowed to sit at locations where the seat belts are being used to secure the child seat.

All vehicles are equipped with a dual-mode type retractor with emergency and automatic locking features. The automatic locking feature is for restraint of a child seat. The child seat can be secured by pulling the seat belt all the way out to lock it. Then tighten the seat belt around the child seat.

If a child seat is to be used in the second seat position, a special dealer-installed anchor must be used in order to anchor the child seat top strap. This only applies to the seats designed with the top strap provision and for the vehicles sold in Canada. In order to ensure the correct top strap angle, the child seat is only to be used at the seating position for which the top strap anchor is installed.

Fasten Safety Belt Indicators

There is a fasten safety belt indicator for this vehicle. The driver fasten safety belt reminder is displayed in the instrument cluster. The fasten safety belt indicator may only be ON during RUN. The fasten safety belt indicator illuminates under the following conditions:

- During the bulb check
- The inflatable restraint sensing and diagnostic module (SDM) sends the status of the driver seat belt to the instrument cluster via serial data. If any of the seat belts are unfastened, the instrument cluster will send a message requesting a chime sound to be turned ON after a bulb check.

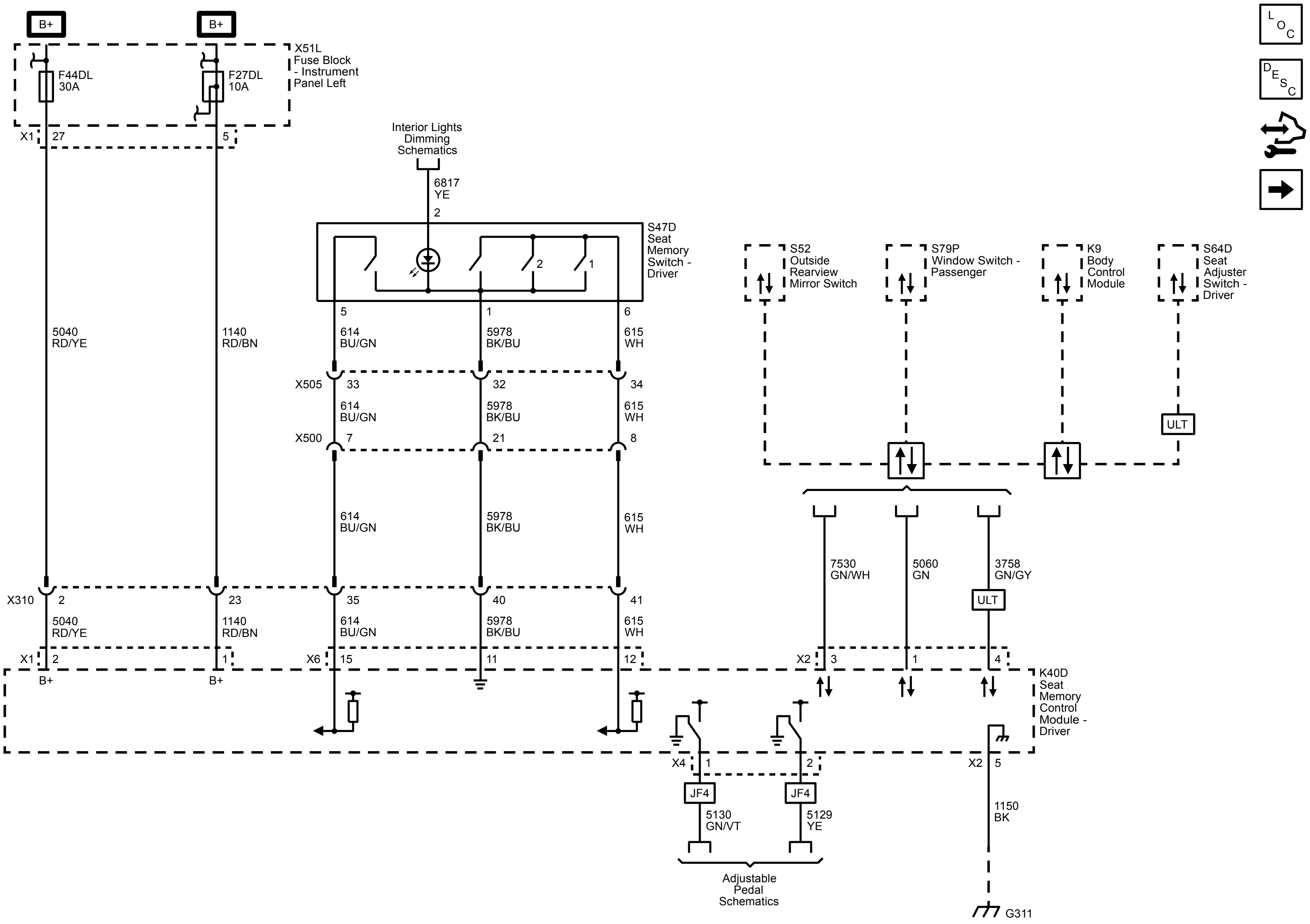
Seats

Power Seats

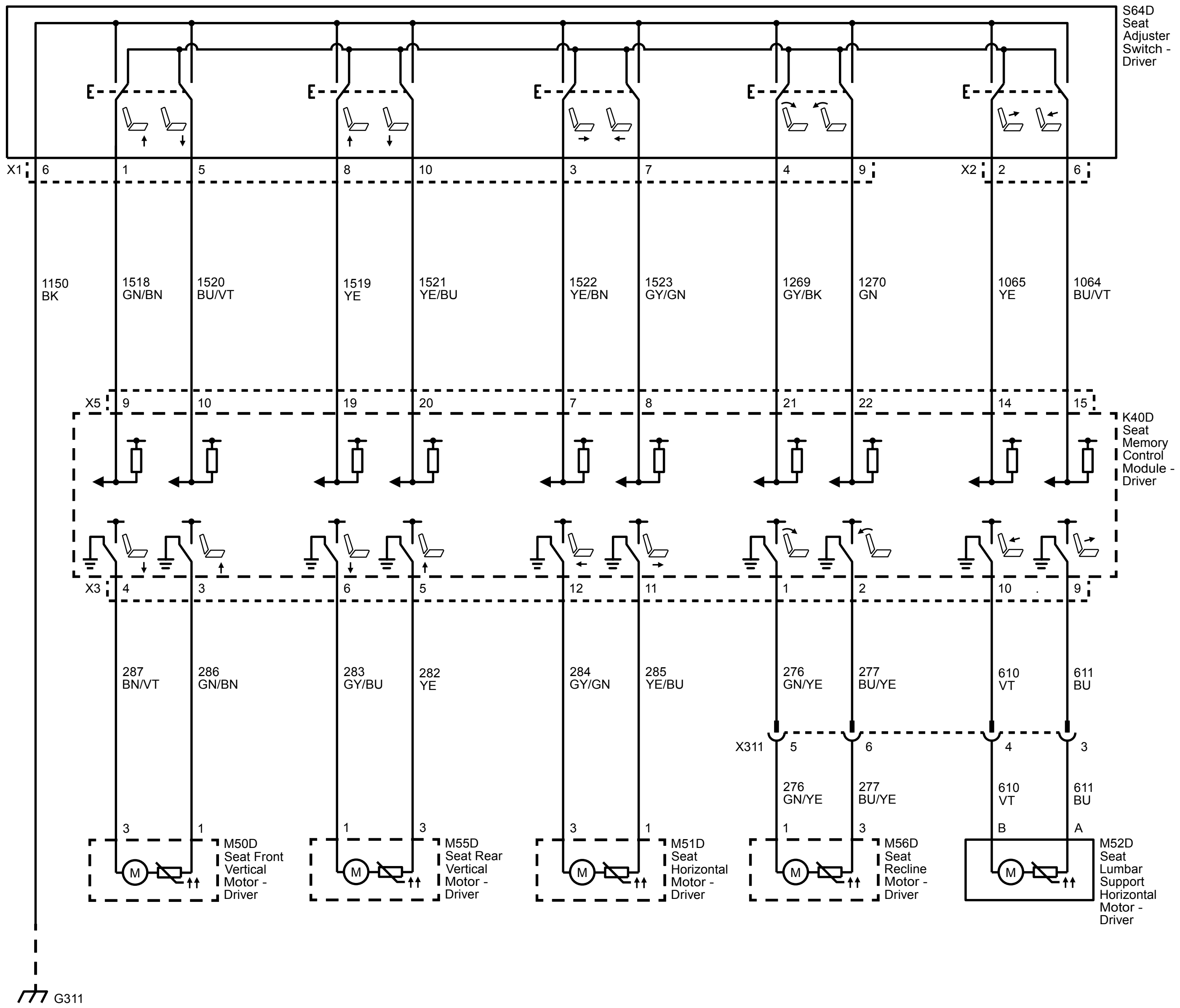
Schematic and Routing Diagrams

Driver Seat Schematics

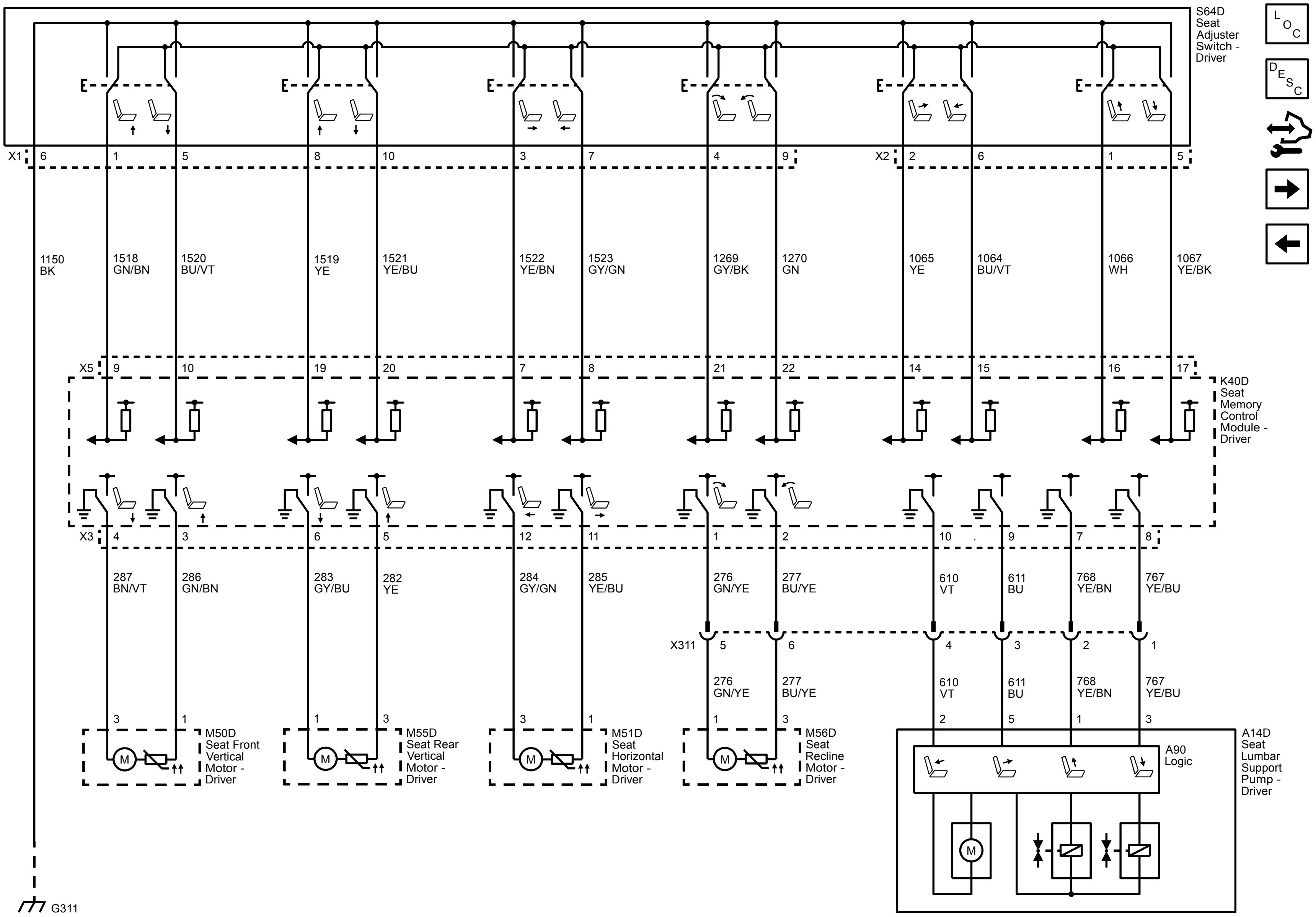
Power, Ground, Serial Data and Memory Switch (A45)


B+
B+
X51L
Fuse Block
- Instrument
Panel Left
F44DL
30A
F27DL
10A
X1
27
5
Interior Lights
Dimming
Schematics
6817
YE
2
S47D
Seat
Memory
Switch -
Driver
2
1
5
1
6
5040
RD/YE
1140
RD/BN
614
BU/GN
5978
BK/BU
615
WH
X505
33
32
34
614
BU/GN
5978
BK/BU
615
WH
X500
7
21
8
614
BU/GN
5978
BK/BU
615
WH
S52
Outside
Rearview
Mirror Switch
S79P
Window Switch -
Passenger
K9
Body
Control
Module
S64D
Seat
Adjuster
Switch -
Driver
ULT
7530
GN/WH
5060
GN
3758
GN/GY
ULT
X310
2
23
35
40
41
5040
RD/YE
1140
RD/BN
614
BU/GN
5978
BK/BU
615
WH
X1
2
1
X6
15
11
12
X2
3
1
4
B+
B+
K40D
Seat
Memory
Control
Module -
Driver
X4
1
2
X2
5
JF4
JF4
5130
GN/VT
5129
YE
1150
BK
Adjustable
Pedal
Schematics
G311
L O C
D E S C

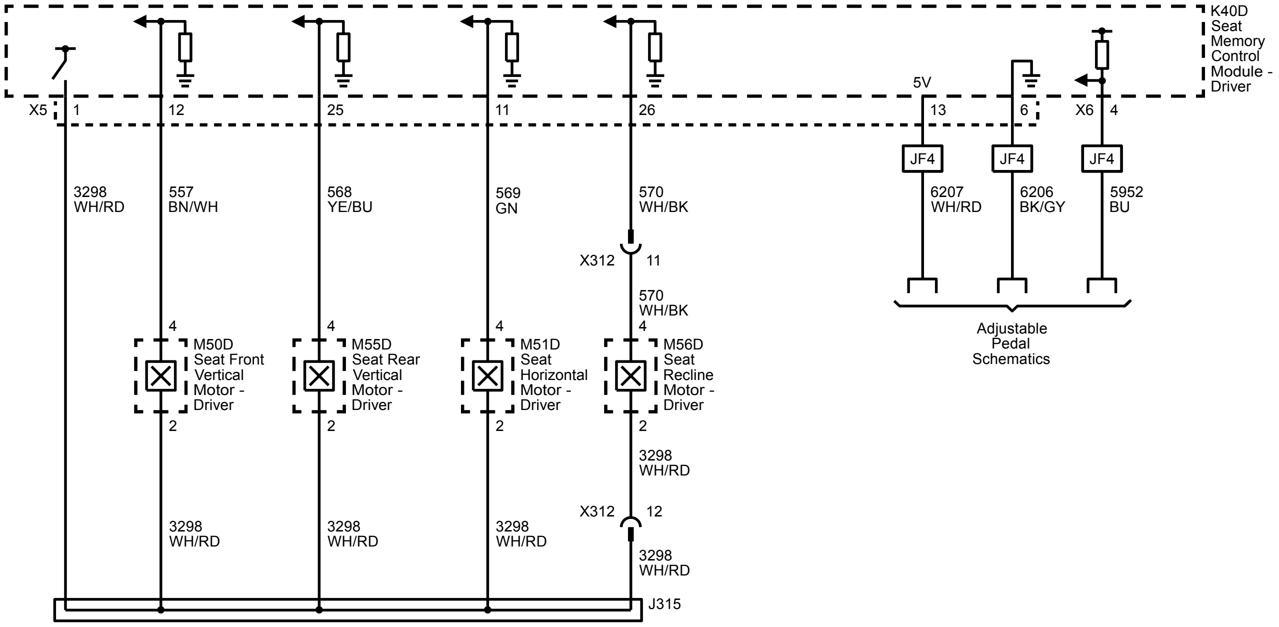
Controls and Motors (A45, without Y91 or Z75)


S64D Seat Adjuster Switch - Driver
X1
6
1
5
8
10
3
7
4
9
X2
2
6
1150 BK
1518 GN/BN
1520 BU/VT
1519 YE
1521 YE/BU
1522 YE/BN
1523 GY/GN
1269 GY/BK
1270 GN
1065 YE
1064 BU/VT
X5
9
10
19
20
7
8
21
22
14
15
K40D Seat Memory Control Module - Driver
X3
4
3
6
5
12
11
1
2
10
9
287 BN/VT
286 GN/BN
283 GY/BU
282 YE
284 GY/GN
285 YE/BU
276 GN/YE
277 BU/YE
610 VT
611 BU
X311
5
6
4
3
276 GN/YE
277 BU/YE
610 VT
611 BU
3
1
1
3
3
1
1
3
B
A
M
M50D Seat Front Vertical Motor - Driver
M55D Seat Rear Vertical Motor - Driver
M51D Seat Horizontal Motor - Driver
M56D Seat Recline Motor - Driver
M52D Seat Lumbar Support Horizontal Motor - Driver
G311

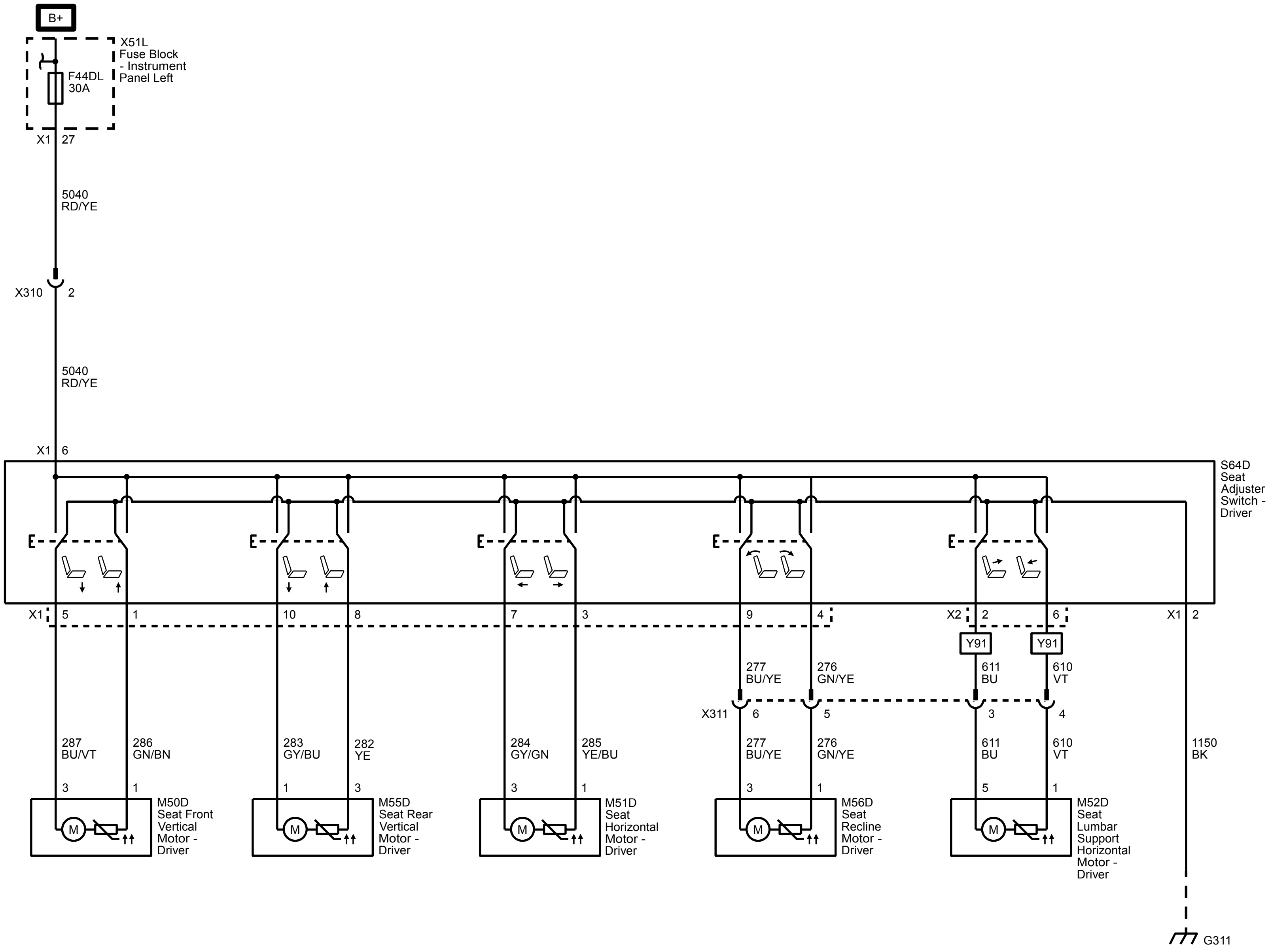
Controls and Motors (A45, with Y91 or Z75 without ULT)

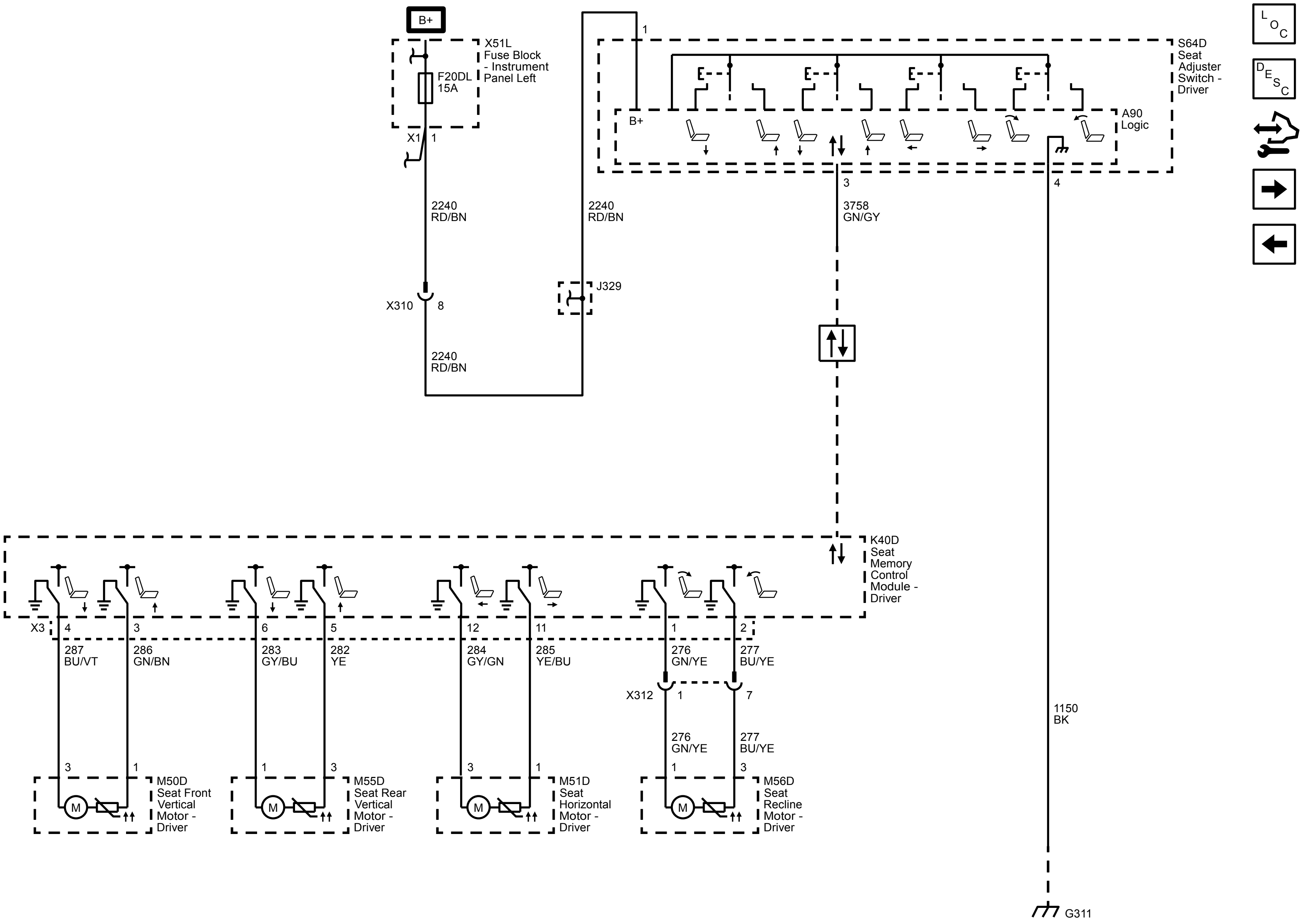

S64D Seat Adjuster Switch - Driver
LOC
DESC
X1
6
1
5
8
10
3
7
4
9
X2
2
6
1
5
1150 BK
1518 GN/BN
1520 BU/VT
1519 YE
1521 YE/BU
1522 YE/BN
1523 GY/GN
1269 GY/BK
1270 GN
1065 YE
1064 BU/VT
1066 WH
1067 YE/BK
X5
9
10
19
20
7
8
21
22
14
15
16
17
K40D Seat Memory Control Module - Driver
X3
4
3
6
5
12
11
1
2
10
9
7
8
287 BN/VT
286 GN/BN
283 GY/BU
282 YE
284 GY/GN
285 YE/BU
276 GN/YE
277 BU/YE
610 VT
611 BU
768 YE/BN
767 YE/BU
X311
5
6
4
3
2
1
276 GN/YE
277 BU/YE
610 VT
611 BU
768 YE/BN
767 YE/BU
3
1
M
M50D Seat Front Vertical Motor - Driver
1
3
M
M55D Seat Rear Vertical Motor - Driver
3
1
M
M51D Seat Horizontal Motor - Driver
1
3
M
M56D Seat Recline Motor - Driver
2
5
1
3
A90 Logic
M
A14D Seat Lumbar Support Pump - Driver
G311

Position Sensors (A45)

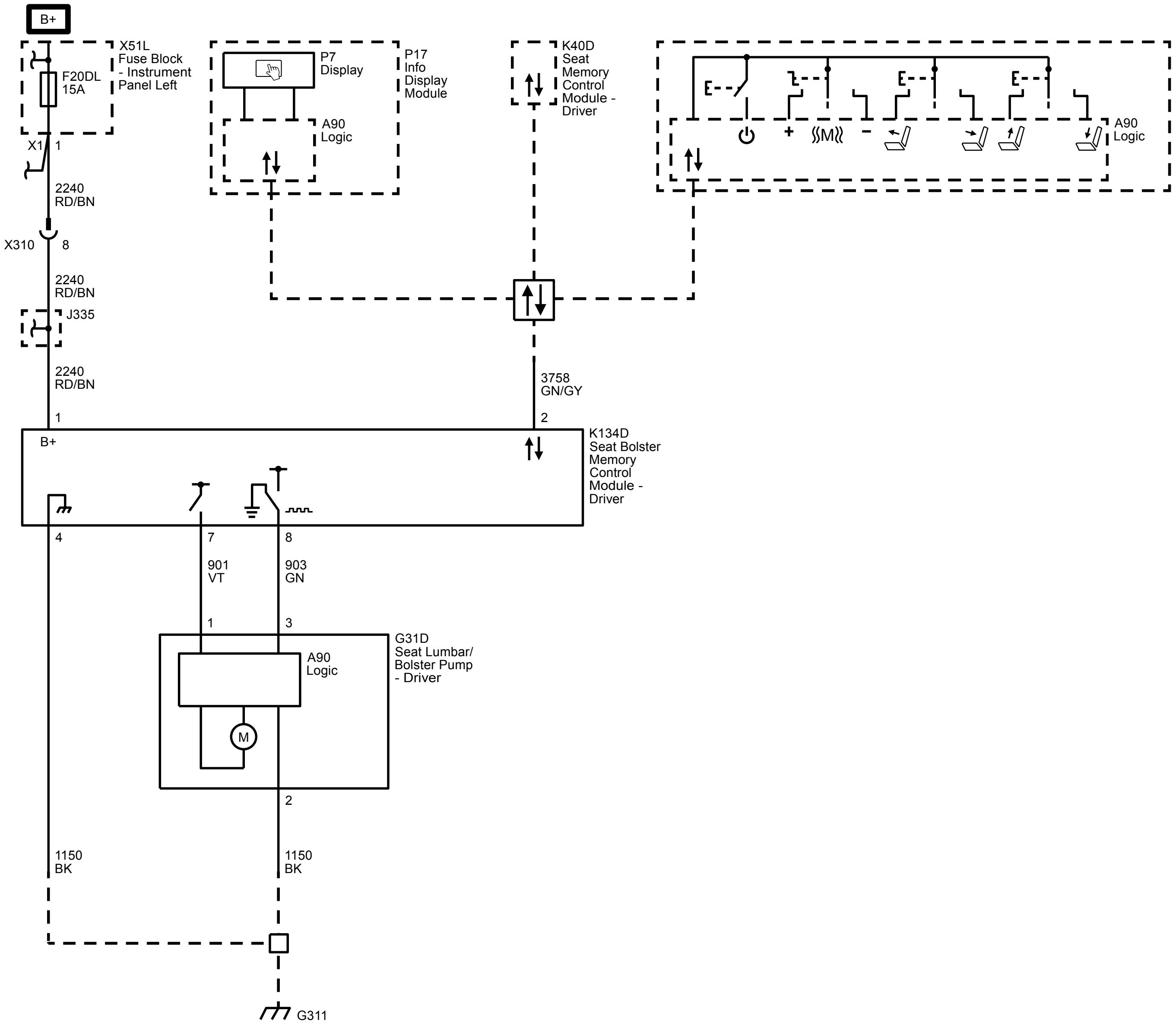

K40D
Seat
Memory
Control
Module -
Driver
X5
1
12
25
11
26
5V
13
6
X6
4
JF4
JF4
JF4
3298
WH/RD
557
BN/WH
568
YE/BU
569
GN
570
WH/BK
6207
WH/RD
6206
BK/GY
5952
BU
X312
11
570
WH/BK
Adjustable
Pedal
Schematics
4
M50D
Seat Front
Vertical
Motor -
Driver
4
M55D
Seat Rear
Vertical
Motor -
Driver
4
M51D
Seat
Horizontal
Motor -
Driver
4
M56D
Seat
Recline
Motor -
Driver
2
2
2
2
3298
WH/RD
X312
12
3298
WH/RD
3298
WH/RD
3298
WH/RD
3298
WH/RD
J315

Power Seat (without A45)


B+
X51L Fuse Block - Instrument Panel Left
F44DL 30A
X1 27
5040 RD/YE
X310 2
5040 RD/YE
X1 6
S64D Seat Adjuster Switch - Driver
X1 5
1
10
8
7
3
9
4
X2 2
6
X1 2
Y91
Y91
277 BU/YE
276 GN/YE
611 BU
610 VT
X311 6
5
3
4
287 BU/VT
286 GN/BN
283 GY/BU
282 YE
284 GY/GN
285 YE/BU
277 BU/YE
276 GN/YE
611 BU
610 VT
1150 BK
3
1
1
3
3
1
3
1
5
1
M
M
M
M
M
M50D Seat Front Vertical Motor - Driver
M55D Seat Rear Vertical Motor - Driver
M51D Seat Horizontal Motor - Driver
M56D Seat Recline Motor - Driver
M52D Seat Lumbar Support Horizontal Motor - Driver
G311


B+
X51L
Fuse Block
- Instrument
Panel Left
F20DL
15A
X1
1
2240
RD/BN
X310
8
2240
RD/BN
2240
RD/BN
J329
1
S64D
Seat
Adjuster
Switch -
Driver
B+
A90
Logic
3
3758
GN/GY
4
1150
BK
G311
K40D
Seat
Memory
Control
Module -
Driver
X3
4
287
BU/VT
3
286
GN/BN
6
283
GY/BU
5
282
YE
12
284
GY/GN
11
285
YE/BU
1
276
GN/YE
2
277
BU/YE
X312
1
7
276
GN/YE
277
BU/YE
3
1
M50D
Seat Front
Vertical
Motor -
Driver
1
3
M55D
Seat Rear
Vertical
Motor -
Driver
3
1
M51D
Seat
Horizontal
Motor -
Driver
1
3
M56D
Seat
Recline
Motor -
Driver
M
LOC
DESC

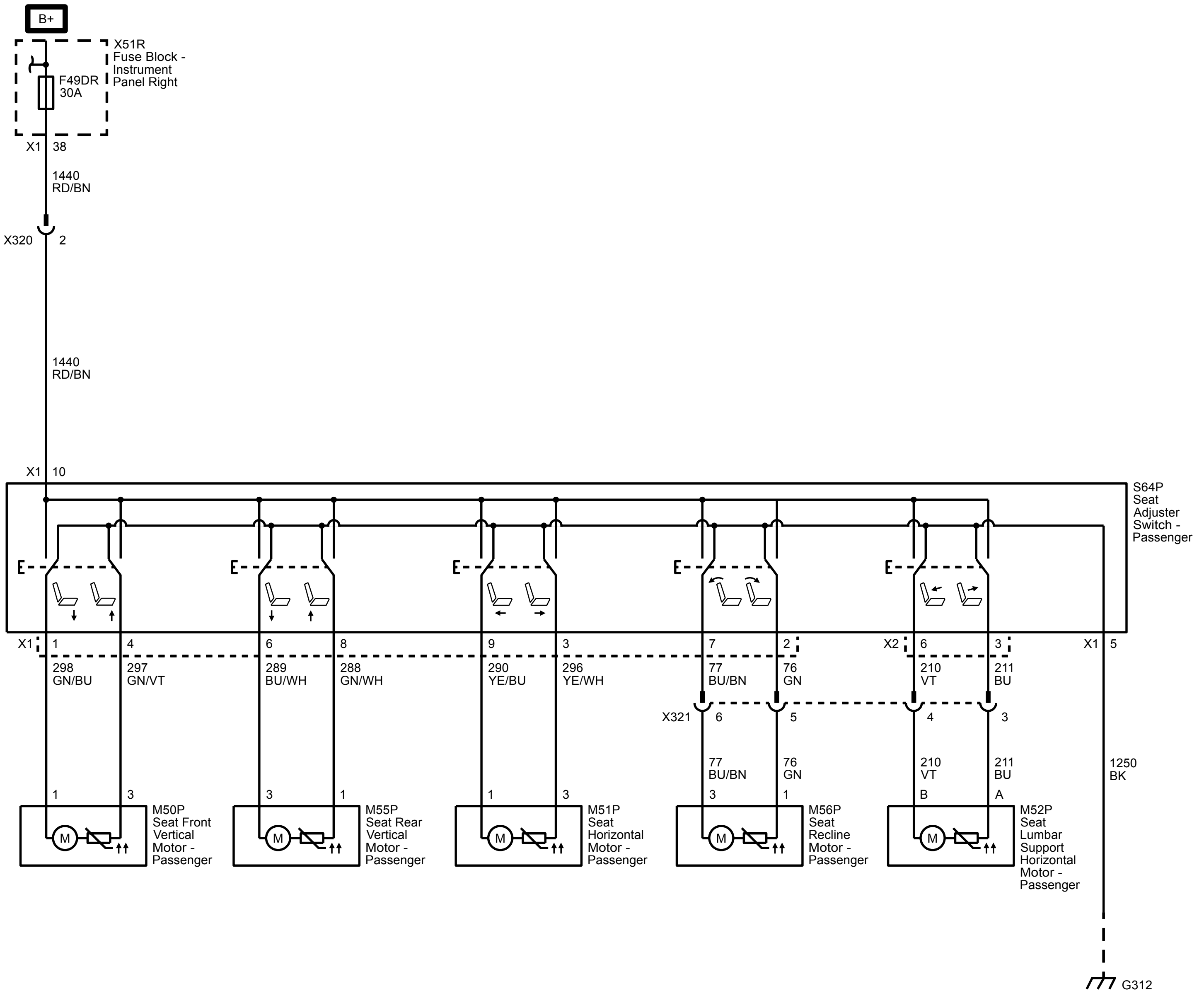
Lumbar and Massage (ULT)



B+
X51L
Fuse Block
- Instrument
Panel Left
F20DL
15A
X1
1
2240
RD/BN
X310
8
2240
RD/BN
J335
2240
RD/BN
P7
Display
P17
Info
Display
Module
A90
Logic
K40D
Seat
Memory
Control
Module -
Driver
S64D
Seat
Adjuster
Switch -
Driver
A90
Logic
+
M
-
3758
GN/GY
1
2
B+
K134D
Seat Bolster
Memory
Control
Module -
Driver
4
7
8
901
VT
903
GN
1
3
A90
Logic
G31D
Seat Lumbar/
Bolster Pump
- Driver
M
2
1150
BK
1150
BK
G311

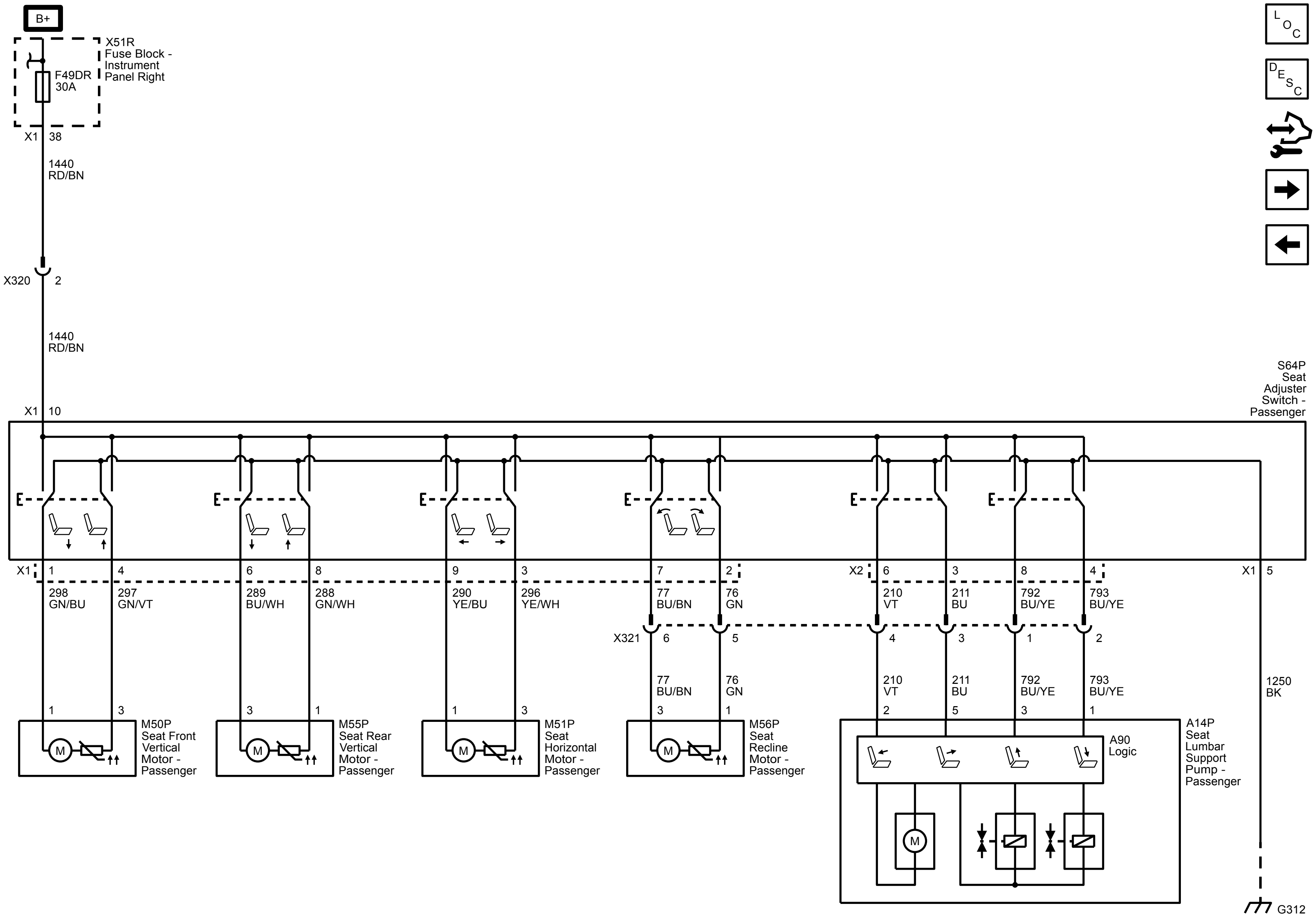
Passenger Seat Schematics

Power Seat (without Y91 or Z75)

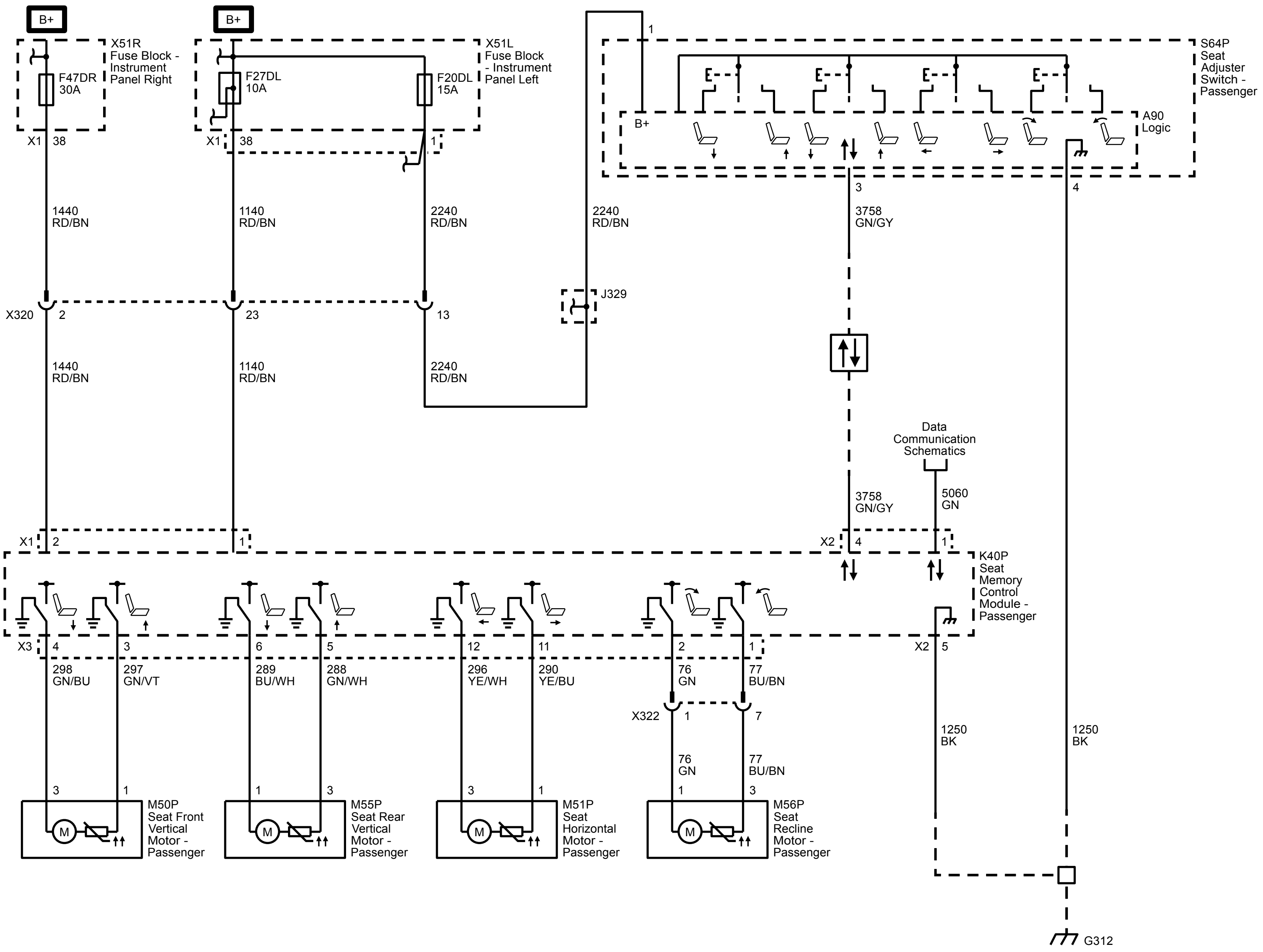


B+
X51R
Fuse Block -
Instrument
Panel Right
F49DR
30A
X1 38
1440
RD/BN
X320 2
1440
RD/BN
X1 10
S64P
Seat
Adjuster
Switch -
Passenger
X1 1
4
6
8
9
3
7
2
X2 6
3
X1 5
298
GN/BU
297
GN/VT
289
BU/WH
288
GN/WH
290
YE/BU
296
YE/WH
77
BU/BN
76
GN
210
VT
211
BU
X321 6
5
4
3
77
BU/BN
76
GN
210
VT
211
BU
1250
BK
1
3
3
1
1
3
3
1
B
A
M
M50P
Seat Front
Vertical
Motor -
Passenger
M55P
Seat Rear
Vertical
Motor -
Passenger
M51P
Seat
Horizontal
Motor -
Passenger
M56P
Seat
Recline
Motor -
Passenger
M52P
Seat
Lumbar
Support
Horizontal
Motor -
Passenger
G312

Power Seat (Y91 or Z75 without ULT)

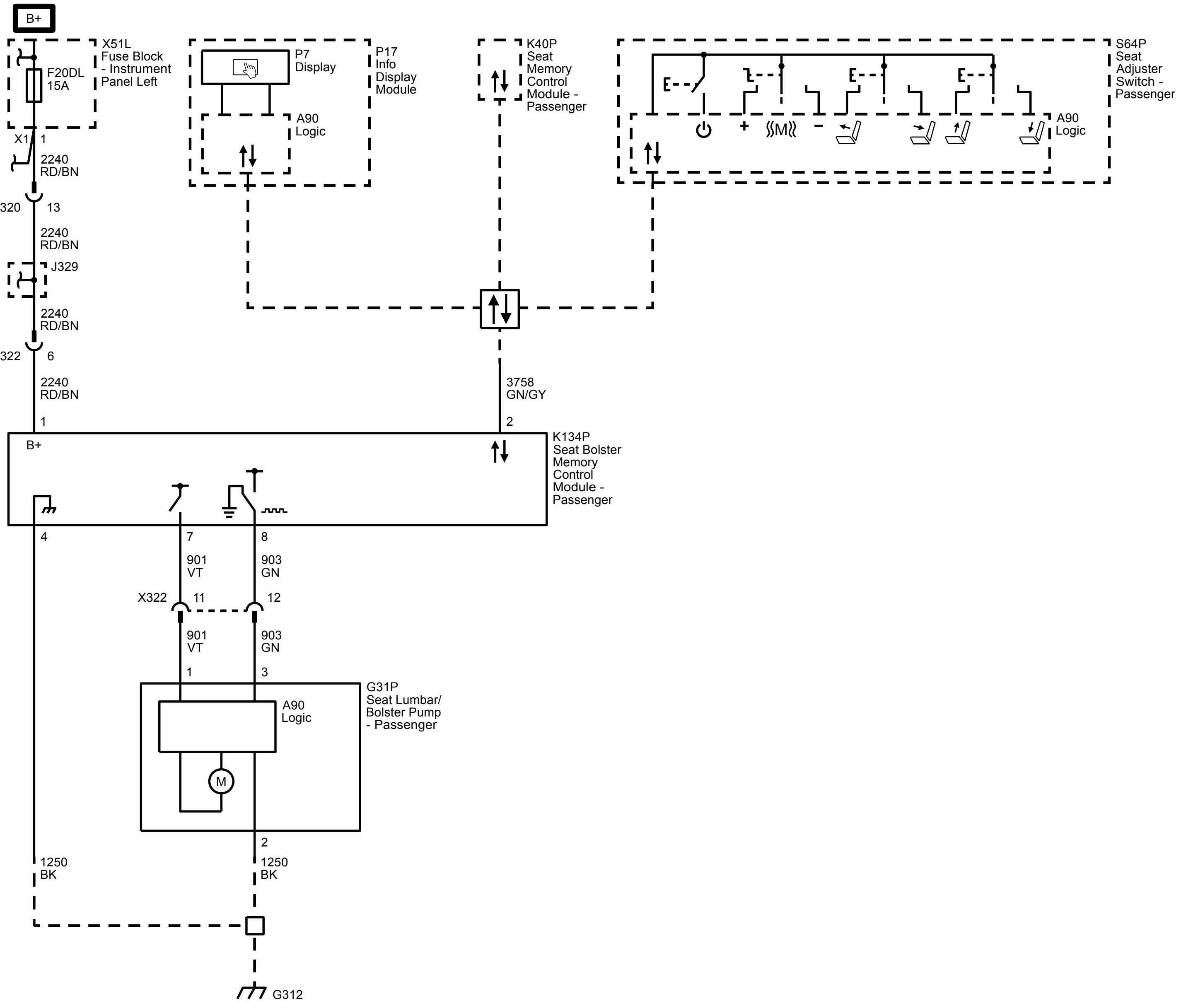

B+
X51R
Fuse Block -
Instrument
Panel Right
F49DR
30A
X1 38
1440
RD/BN
X320 2
1440
RD/BN
X1 10
S64P
Seat
Adjuster
Switch -
Passenger
X1 1
4
6
8
9
3
7
2
X2 6
3
8
4
X1 5
298
GN/BU
297
GN/VT
289
BU/WH
288
GN/WH
290
YE/BU
296
YE/WH
77
BU/BN
76
GN
210
VT
211
BU
792
BU/YE
793
BU/YE
X321 6
5
4
3
1
2
77
BU/BN
76
GN
210
VT
211
BU
792
BU/YE
793
BU/YE
1250
BK
1
3
3
1
1
3
3
1
2
5
3
1
M
M50P
Seat Front
Vertical
Motor -
Passenger
M55P
Seat Rear
Vertical
Motor -
Passenger
M51P
Seat
Horizontal
Motor -
Passenger
M56P
Seat
Recline
Motor -
Passenger
A90
Logic
A14P
Seat
Lumbar
Support
Pump -
Passenger
G312

Power Seat (ULT)



B+
B+
X51R Fuse Block - Instrument Panel Right
F47DR 30A
X51L Fuse Block - Instrument Panel Left
F27DL 10A
F20DL 15A
X1 38
X1 38
1
1440 RD/BN
1140 RD/BN
2240 RD/BN
2240 RD/BN
J329
X320 2
23
13
1440 RD/BN
1140 RD/BN
2240 RD/BN
S64P Seat Adjuster Switch - Passenger
A90 Logic
B+
3
4
3758 GN/GY
Data Communication Schematics
3758 GN/GY
5060 GN
X1 2
1
X2 4
1
K40P Seat Memory Control Module - Passenger
X3 4
3
6
5
12
11
2
1
X2 5
298 GN/BU
297 GN/VT
289 BU/WH
288 GN/WH
296 YE/WH
290 YE/BU
76 GN
77 BU/BN
X322 1
7
76 GN
77 BU/BN
1250 BK
1250 BK
3
1
1
3
3
1
1
3
M
M50P Seat Front Vertical Motor - Passenger
M
M55P Seat Rear Vertical Motor - Passenger
M
M51P Seat Horizontal Motor - Passenger
M
M56P Seat Recline Motor - Passenger
G312

Lumbar and Massage (ULT)



B+
X51L
Fuse Block
- Instrument
Panel Left
F20DL
15A
X1
1
2240
RD/BN
X320
13
2240
RD/BN
J329
2240
RD/BN
X322
6
2240
RD/BN
1
P7
Display
P17
Info
Display
Module
A90
Logic
K40P
Seat
Memory
Control
Module -
Passenger
S64P
Seat
Adjuster
Switch -
Passenger
A90
Logic
+
M
-
3758
GN/GY
2
B+
K134P
Seat Bolster
Memory
Control
Module -
Passenger
4
7
8
901
VT
903
GN
X322
11
12
901
VT
903
GN
1
3
G31P
Seat Lumbar/
Bolster Pump
- Passenger
A90
Logic
M
2
1250
BK
1250
BK
G312

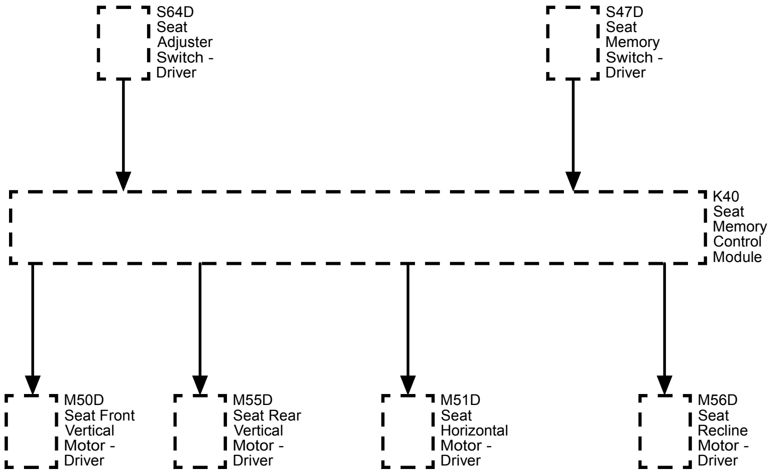
Description and Operation

Memory Seats Description and Operation

The driver memory seat system consists of the following components:

- Driver seat adjuster switch
- Driver seat memory switch
- Seat memory control module
- Driver seat horizontal motor
- Driver seat front vertical motor
- Driver seat rear vertical motor
- Driver seat recline motor
- Driver seat horizontal motor position sensor
- Driver seat front vertical motor position sensor
- Driver seat rear vertical motor position sensor
- Driver seat recline motor position sensor

Memory Seat Block Diagram


S64D Seat Adjuster Switch - Driver
S47D Seat Memory Switch - Driver
K40 Seat Memory Control Module
M50D Seat Front Vertical Motor - Driver
M55D Seat Rear Vertical Motor - Driver
M51D Seat Horizontal Motor - Driver
M56D Seat Recline Motor - Driver

Driver Seat Adjuster Switch

For vehicles equipped with the seat memory lumbar/bolster feature, refer to CELL Link Error - Link target cell (cell ID 158618) is invalid for this publication. With Seat Bolster Memory Control Module for the seat adjuster switch description and operation.

Ground is supplied at all times to the driver seat adjuster switch through the switch ground circuit and ground connection. The seat memory control module supplies a low current voltage to each signal circuit of the seat adjuster switch. When the driver seat adjuster switches are pressed, the appropriate signal circuit from the seat memory control module is pulled low through the switch contacts indicating the power seat command. The seat memory control module then commands the appropriate driver seat motor to move in response to the switch signal.

Seat Memory Control Module Power and Grounds

Battery voltage is supplied at all times to the seat memory control module through two different circuits. One circuit is used by the module to apply power to the driver seat motors and lumbar motors, if equipped, when commanded ON. The second battery voltage circuit is used to power up module and supply a reference voltage to the seat position sensors. Ground is provided to the seat memory control module through a single ground circuit and ground connection.

Seat Motors

There are 4 motors that move the position of the seat. These are the seat horizontal motor, seat front vertical motor, seat rear vertical motor, and the seat back recline motor. The horizontal motor moves the entire seat forward and rearward. The seat front vertical motor moves the front of the seat cushion up or down. The seat rear vertical motor moves the rear of the seat cushion up and down. Due to the seat adjuster switch design the front tilt and the seat height adjuster motor cannot be operated at the same time The recline motor moves the angle of the seat back forward or rearward.

The seat memory control module controls all seat and lumbar motors via half bridges that are connected to a single power rail internal to the module. The module connects all seat and lumbar motor outputs to a common ground whenever they are not in operation. The seat memory control module checks to see if any motor control circuits are shorted to ground or voltage before enabling any seat or lumbar motor. All of the motors operate independently of each other. Each motor contains a electronic circuit breaker (PTC), which will reset only after voltage has been removed from the motor.

All seat motors are reversible. For example, when a seat switch is pressed to move the entire seat forward, ground is applied through the switch contacts onto the seat horizontal forward switch signal circuit to the seat memory control module. In response to this signal, the module applies battery voltage through the driver seat horizontal motor forward control circuit and ground through the driver seat horizontal motor rearward control circuit to the motor. The motor runs in order to drive the entire seat forward. Moving the entire seat rearward works similarly to moving the entire seat forward, except that battery voltage and ground are applied on the opposite circuits causing the motor to run in the opposite direction. All of the motors are powered this way.

Position Sensors

To monitor seat position, each seat motor has an internal 2-wire hall-effect position sensor. The seat memory control module supplies all the sensors with a common 12 V reference when the seat is moving and a unique signal circuit for each sensor. During seat motor operation, the position sensors provide a specific number of pulse signals for every revolution of the motor shaft.

The seat memory control module determines seat position by keeping a running counter where movement in the forward/upward direction adds counts and movement in the rearward/down direction subtracts counts. The value of the counter will be in the range of 0 – 65,535

The value of these counters, which represent seat positions, are stored in memory for future seat memory recall operation. During a memory seat position recall, the seat memory control module moves the seat in such a way to return it the stored counter value.

Memory Functions

In all power modes except crank, memory recalls can be initiated by pressing and holding one of the memory position buttons until the seat reaches the stored memory position associated with the activated button. This is called a supervised recall.

The seat memory control module supplies a ground at all times through a low reference circuit to the driver seat memory switch. The module also supplies memory set and memory recall signal circuits to the seat memory switch. When a memory recall switch is pressed, the signal circuit from the seat memory control module is pulled low through the switch contacts and a series of resistors indicating the memory recall request. In response to this signal, the seat memory control module commands the appropriate seat motors to move to the pre-recorded seat positions stored in memory.

Refer to the Owner’s Manual for storing memory positions.

Auto Memory Recall and Easy Exit

The seat memory control module will not perform Auto Memory Seat Recall and Easy Exit functions unless these options are enabled in vehicle personalization using the radio/HVAC controls.

Refer to Instruments and Controls/Vehicle Personalization in the Owner’s Manual for the following memory personalization options:

- Auto Memory Recall
- Easy Exit Options

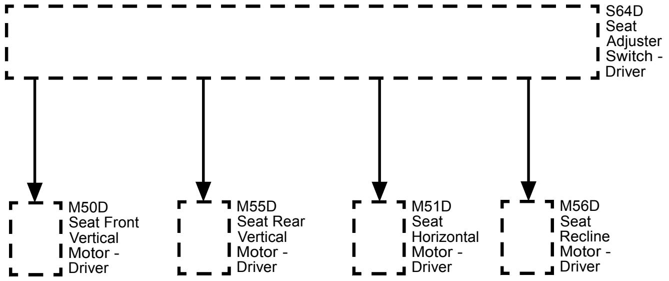
The radio/HVAC controls reports the auto memory recall option settings to the seat memory control module via serial data message. The module will then store the memory recall option setting and examine it before making a memory seat adjustment. The auto memory recall option setting stored within the module will not change until the auto memory recall option setting in vehicle personalization is changed.

Power Seats System Description and Operation (Front Seats)

The driver and passenger power seat systems each consist of the following components:

- Seat adjuster switch
- Seat horizontal motor
- Seat front vertical motor (If Equipped)
- Seat rear vertical motor
- Seat recline motor

Power Seat Block Diagram



Seat Motors

The seat switches provide both power and ground to the selected seat motors.

All of the seat motors operate independently of each other. Each motor contains an electronic circuit breaker (PTC) that opens in the event of a circuit overload and will reset only after voltage has been removed from the circuit. There are four seat position motors and two lumbar motors. These are the horizontal motor, front vertical motor, rear vertical motor, and the seat back recline motor. The seat horizontal motor moves the entire seat forward and rearward. The seat vertical motors may operate independently to tilt the front or rear of the seat cushion up or down. Both motors can also run simultaneously to move the entire seat up or down. The recline motor moves the angle of the seat back forward or rearward.

Seat Operation

All seat motors are reversible. For example, when the seat horizontal forward switch is pressed to move the entire seat forward, battery voltage is applied through the switch contacts and the seat horizontal motor forward control circuit to the motor. With the horizontal motor rearward switch contacts closed to the switch ground circuit, the motor runs in order to drive the entire seat forward until the switch is released. Moving the entire seat rearward works similarly to moving the entire seat forward, except that battery voltage and ground are applied on opposite circuits causing the motor to run in the opposite direction. All seat motors are powered this way.

Power Seats System Description and Operation (2nd Row Seats)

The left and right 2nd row folding seat systems each consist of the following components:

- Folding seat switch
- Folding seat motor

The folding 2nd row seats are operated from the folding seat switches located on the driver side rear panel and on the trim panel in the rear cargo area. Battery voltage is supplied at all times to the folding seat switches through the park enable relay while in a de-energized state. Battery voltage is also supplied at all times to the folding seat motors through a 20 A fuse located in the rear body fuse block. When a folding seat switch is pressed, battery voltage is applied through the switch contacts and the control circuit to the folding seat motor. The motor runs to move the seat back to the folded position.

Power Seats System Description and Operation (3rd Row Seats)

The left and right 3rd row folding seat system each consist of the following components:

- Folding seat control module – 3rd row
- Folding seat switch – D-pillar 3rd row
- Folding seat motor – seat back release 3rd row
- Folding seat motor – 3rd row
- Folding seat sensor

Folding Seat Control Module – 3rd Row

The folding seat control module controls both sides of the 60/40 split 3rd row folding seat.

The folding seat control module will be in a low power sleep state until it detects the activation of one of the folding seat switches. It will remain in its normal operating awake mode and not return to its sleep mode until all its outputs have been off for 30 s and it has been determined that no switches are active.

Battery positive voltage is supplied at all times to the folding seat control module through a 30 A fuse located in the rear body fuse block. The module uses this voltage for both logic power and to power the seat motors and seat back release motors. Each folding seat motor and release motor is controlled by a relays internal to the folding seat control module and through two control circuits to each motor and release motor. The control module checks to see if the control circuits are shorted to ground or voltage before enabling folding seat operation.

Folding Seat Switches

The 3rd row folding seat switches are located on the D-pillar of the rear cargo area. Each side of the 60/40 split seat has a pair of fold and unfold normally open, high assertion, momentary switches designed to keep them from being simultaneously pressed.

When the transmission is in the park position, battery voltage is supplied to the folding seat switches through the normally closed contacts of the Park Enable Relay which is controlled by the BCM. When the transmission is not in the park position, the BCM energizes the relay opening the contacts and removing battery voltage from the switches. Thus folding seat operation is only available with the vehicle transmission in the park position.

Each switch contact is connected to an individual discrete input of the folding seat control module which provides a pull down to ground on these signal circuits. When a folding seat switch is pressed battery voltage is applied through the switch contacts and the signal circuit to the folding seat control module. The module then commands the folding seat to move in response to the switch signal.

Folding Seat Motor – Seat Back Release

The folding seat back release motor is a spring loaded device used to latch the seat back into its desired parked position or to unlatch the seat back for folding or unfolding seat operation. There are three modes of release motor control; retract, hold, and release. When the folding seat switch is pressed to fold the seat, the folding seat control module applies a PWM voltage, approximately 95% duty cycle, through the seat back release motor control circuit to the motor releasing the seat back. The control module holds the release motor at a reduced voltage, approximately 25% duty cycle, until a stall condition is reached. Once a stall condition is reach the module releases the motor latching the seat back in place. One second after the motor is released, the seat will move in the opposite direction of travel to confirm the seat back is locked in a secure position. This action will continue until a stall condition is detected, refer to Folding Seat Sensor below. After the completion of the latch lock conformation, the module will relieve any bound up tension after the latch lock conformation.

Folding Seat Motor

The folding seat motor is used to physically move the seat back to its desired position. It is a bi-directional motor connected to two H-Bridge relay outputs of the folding seat control module. To fold the seat, one control module output provides power to one side of the motor while the other side is grounded through the other relay output. To unfold the seat, the polarities on the motor are reversed.

While the motor outputs are off, the control module internal diagnostic network applies a bias voltage of 2.5 V to the motor control circuits. If there is a short to voltage or a short to ground on either control circuit, this will cause a shift in the bias voltage on the diagnostic network and the module will not activate a motor under this condition.

Folding Seat Sensor

Internal to the folding seat motor is the folding seat sensor. The sensor is a 2-wire hall-effect sensor which is used strictly to determine the stall status of the folding seat motor. It is not used to provide seat position information.

The folding seat control module supplies a 10 V reference voltage through one circuit while the other circuit is the signal circuit. As the motor runs the sensor provides 4 pulses per revolution which it uses to determine when the motor has reached a stalled condition. A stall condition is caused by the seat back being fully folded, by being unfolded in the upright position, or by an object in the seat’s path preventing movement. If the module does not detect a pulse from the sensor for 100 ms it will cease the folding seat operation.

Folding Seat Operation

With the vehicle transmission in the park position, the folding seat will operate in either dual mode or single mode. The normal operating mode is the dual seat mode where both sides of the 60/40 seat can move individually or at the same time.

Single seat mode is entered during a requested operation when the system voltage drops below 10.5 V. It allows only one side of the 60/40 seat to be folded at a time until the requested operation is complete. Once the operation is completed, additional switch inputs will be ignored until the voltage level returns to its normal range. In all cases the 60 seat operation will have priority over the 40 seat operation.

When a switch is activated, battery voltage is applied to the associated input signal to the control module. This wakes the module up out of its low power state and begins to execute the requested seat movement.

First, the control module operates the folding seat back release motor in the pull state, refer to Folding Seat Motor – Seat Back Release above, until it considers the seat is unlatched as determined either monitoring motor current for a stall condition or a 1.5 s time-out. Once the seat is considered unlatched the control module maintains the release motor in the hold state to keep the latch pin disengaged from the seat.

Once the release motor is in the hold state, the control module powers the folding seat motor in the appropriate direction to fold or un-fold the seat based on which switch inputs are active. While the seat motor is active the control module monitors the folding seat sensor for a stall condition, switch inputs for a transition from the active to the inactive state, excessive motor current, and the time the motor is active.

The seat will continue to move until the control module determines that either the customer has released the switch, the folding seat sensor indicates that the folding seat motor is in a stall condition, excessive motor current is detected, or the current seat movement is taking an excessive amount of time to execute for the given system voltage and operating temperature. When any of these conditions are detected the control module turns off the seat motor, then releases the motor allowing the motor’s spring to drive the latch pin back into the lock position. The control module then executes a seat parking operation.

To execute seat parking, one second after the release motor is released, the seat shall move in the opposite direction of travel to confirm the latch is locked. This seat movement will occur until a stall condition is detected or 400 ms have passed. Then to relieve any tension in the seat structure that may have occurred due to the latch confirmation, the seat will move in the opposite direction for a specified amount of travel or after 100 ms have passed.

The module will power down to its low power state when all the switches appear inactive and all the outputs have been inactive for 30 s.

Power Seats System Description and Operation (Passenger Seat with Seat Bolster Memory Control Module)

The passenger power seat motors controlled by a seat memory control module consists of the following components:

- Seat adjuster switch
- Seat memory control module
- Seat horizontal motor
- Seat front vertical motor
- Seat rear vertical motor
- Seat recline motor

Passenger Seat Adjuster Switch

The seat adjuster switch on vehicles equipped with the seat memory lumbar/bolster feature is a LIN Bus device. When a power seat switch is pressed, a serial data message is sent from the seat adjuster switch to the seat memory control module indicating the power seat command. The seat memory control module then commands the appropriate seat motor to move in response to the switch signal.

Seat Memory Control Module Power and Grounds

Battery voltage is supplied at all times to the passenger seat memory control module through a 30 A fuse located in the right instrument panel fuse block. This voltage is used by the module to apply power to the seat motors when commanded ON. Battery voltage is also supplied at all times to the seat memory control module through a 10 A fuse located in the left instrument panel fuse block. This voltage is used to power up module. Ground is provided to the seat memory control module through a single ground circuit and ground connection.

Seat Motors

There are 4 motors that move the position of the seat. These are the seat horizontal motor, seat front vertical motor, seat rear vertical motor, and the seat back recline motor. The horizontal motor moves the entire seat forward and rearward. The seat front vertical motor moves the front of the seat cushion up or down. The seat rear vertical motor moves the rear of the seat cushion up and down. Due to the seat adjuster switch design the front tilt and the seat height adjuster motor cannot be operated at the same time The recline motor moves the angle of the seat back forward or rearward.

The seat memory control module controls all seat motors via half bridges that are connected to a single power rail internal to the module. The module connects all seat motor outputs to a common ground whenever they are not in operation. The seat memory control module checks to see if any motor control circuits are shorted to ground or voltage before enabling any seat motor. All of the motors operate independently of each other. Each motor contains a electronic circuit breaker (PTC), which will reset only after voltage has been removed from the motor.

All seat motors are reversible. For example, when a seat switch is pressed to move the entire seat forward, ground is applied through the switch contacts onto the seat horizontal forward switch signal circuit to the seat memory control module. In response to this signal, the module applies battery voltage through the seat horizontal motor forward control circuit and ground through the seat horizontal motor rearward control circuit to the motor. The motor runs in order to drive the entire seat forward. Moving the entire seat rearward works similarly to moving the entire seat forward, except that battery voltage and ground are applied on the opposite circuits causing the motor to run in the opposite direction. All of the motors are powered this way.

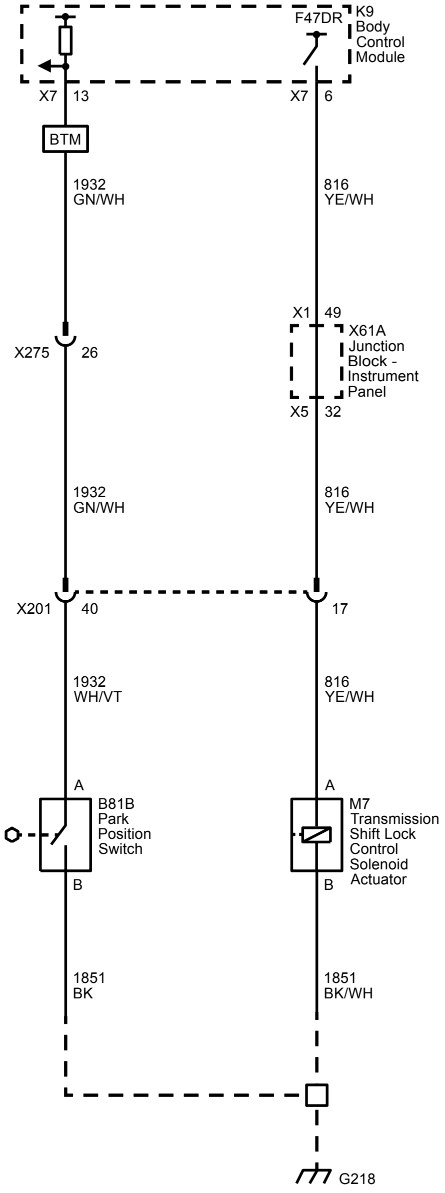
Memory Functions

The passenger power seat system controlled by the seat memory control module does not support seat memory functions. Its purpose is to support the seat bolster memory control module.

Steering

title

Shift Lock Control


F47DR
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X61A Junction Block - Instrument Panel
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X5 32
1932 GN/WH
816 YE/WH
X201 40
17
1932 WH/VT
816 YE/WH
A
B81B Park Position Switch
B
A
M7 Transmission Shift Lock Control Solenoid Actuator
B
1851 BK
1851 BK/WH
G218

Description and Operation

Automatic Transmission Shift Lock Control Description and Operation

The automatic transmission shift lock control system is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The automatic transmission shift lock solenoid (serviced as the automatic transmission shift lock actuator), as well as the body control module (BCM) and the engine control module (ECM). The shift lock solenoid is located within the floor shift control assembly with vehicles equipped with floor shift.
- The BCM controls the voltage to the shift lock control solenoid through the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will remove voltage from the shift lock solenoid:
  - The ignition is in the ON position.
  - The engine control module (ECM) sends an input via GMLAN serial data to the BCM indicating the transmission is in the PARK position.
  - The BCM determines the brake pedal is applied according the brake pedal position.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, mechanically locking the shift lever in the PARK position as the solenoid energizes. When the brake pedal is applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. The de-energized solenoid releases the mechanical lock allowing the driver to move the shift lever out of the PARK position. When the transmission is out of the PARK position, the shift lock control solenoid remains de-energized.

During remote start operation, the BCM will energize the shift lock control circuit, locking the shift lever in the PARK position.